

No.

9900217



# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

## Turf Merchants, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR SELLING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Aztec II'

In Testimony Whereof, I have hereunto set my hand  
and caused the seal of the Plant Variety  
Protection Office to be affixed at the City of  
Washington, D.C. this twenty-fifth day of April,  
in the year two thousand and five.

Attest,

  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE	
<b>APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE</b> (Instructions and information collection burden statement on reverse)	

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER  Turf Merchants, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME  TMI-AZII	3. VARIETY NAME  Aztec II	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)  Turf Merchants, Inc. 33390 Tangent Loop Tangent, Oregon 97389	5. TELEPHONE (Include area code)  (541)926-8649	FOR OFFICIAL USE ONLY  PVPO NUMBER  9900217	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)	8. IF INCORPORATED, GIVE STATE OF INCORPORATION	9. DATE OF INCORPORATION  FILING DATE  3/16/99	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)  Dr. Michael D. Richardson University of Arkansas, Department of Horticulture 309 Plant Science Bldg., Fayetteville, Ark 72701 Voice: (501)443-7220 FAX: (501)443-8619 mricha@comp.uark.edu		FILING AND EXAMINATION FEES:  FEES : \$ 2150 - RECEIVED DATE 3/16/99 CERTIFICATION FEE: \$ 432 - DATE 3/21/2005	
11. TELEPHONE (Include area code)  479 575-2860 501 443 7220	12. FAX (Include area code)  479 575-8619 501 443 8619	13. E-MAIL  mricha@comp.uark.edu	14. CROP KIND (Common Name)  Tall Fescue
15. GENUS AND SPECIES NAME OF CROP Festuca arundinacea	16. FAMILY NAME (Botanical)  Gramineae	17. IS THE VARIETY A FIRST GENERATION HYBRID?  <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)		19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act)  <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)	
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?  <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness		21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?  <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED	
c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional)		IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership		24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be repatriated upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.	
f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)		The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.	
g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.	
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?  <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be repatriated upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER  	SIGNATURE OF OWNER
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NAME (Please print or type)  Michael D. Richardson, PhD	NAME (Please print or type)
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CAPACITY OR TITLE  Plant Breeder	DATE  3/15/99	CAPACITY OR TITLE	DATE
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## INSTRUCTIONS

9900217

**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,450 (\$300 filing fee and \$2,150 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the *Regulations and Rules of Practice*.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**Plant Variety Protection Office**

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvp.htm>

**ITEM**

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See *Regulations and Rules of Practice*, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.

**22. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Seed of Aztec II was first sold by Turf Merchants, Inc. on 3/18/98

**23. CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the *Regulations and Rules of Practice*.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

S&T-470 (6-98) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.

**Exhibit A****Origin and Breeding History - Aztec II**

The variety, Aztec II, is a 63-clone synthetic variety developed from the varieties, Aztec (73%), and Adventure II (38%). The overall breeding methods used to develop Aztec II were phenotypic matched mating combined with recurrent mass selection.

During the winter of 1992-93, a large clonal collection was made from production fields of the variety, Aztec, located in Western Oregon. Clones were selected based on dark green genetic color, vigor, and freedom from winter diseases such as leaf spot. The original collections yielded approximately 200 clones. Prior to transplanting to the field, all clones were screened and identified as to the presence of *Neotyphodium coenophialum* endophyte. Original screening yielded 27 clones that contained endophyte. All clones were planted in a large, space-plant nursery near Aurora, Oregon and allowed to develop to maturity. Just prior to anthesis, the 32 clones containing endophyte and an additional 19 noninfected clones with an erect, medium-tall growth habit were selected from the space-plant nursery. These clones were combined with 25 endophyte-infected clones exhibiting the erect, semi-tall growth habit from a breeding nursery of the variety 'Adventure II' and placed in isolation from other tall fescue pollen sources. All clones were also characterized by high numbers of inflorescences and low incidence of stem rust.

The isolation method involved placing the clones in pots so they could be arranged very close together and moved several times during the pollination period to ensure random pollination among all clones. Seeds from each clone of the Syn-1 crossing block were harvested and conditioned separately and used to plant replicated progeny turf trials in the fall of 1993. Turf plots (1 x 1 m) were planted near Aurora, Oregon and maintained under a moderate fertilization program (20 g N / m<sup>2</sup> / year) and at a 4.0 cm cutting height.

During the winter after their establishment (1993-94), selections were again made from the progeny turf plots, with selections based on overall turf performance to date, good winter color retention, and resistance to winter leaf spot. Performance data indicated that 5 clones of Aztec and 8 clones of Adventure II be removed from the Syn-1 crossing arrangement. From each replicated plot, a strip of sod approximately 5.0 cm wide and 50 cm long was removed in late Jan., 1993, and plants were separated into individual tillers. Individual tillers were established in planting flats containing a commercial potting mix and established in a cold frame greenhouse for approximately 8 weeks prior to transplanting to the field in March, 1994. The Syn-2 space-plant nursery contained approximately 2000 plants and was planted in isolation from other tall fescue pollen sources. Throughout the growing season and until anthesis, the nursery was rogued heavily, removing those plants that did not match phenotype or which exhibited other undesirable characteristics, such as poor inflorescence development, disease susceptibility, or general lack of vigor. The final crossing block contained approximately 1100 clones, from which the seed was harvested and bulked to form the Syn-2 seed.

Seed from the Syn-2 generation was planted immediately into greenhouse flats and approximately 4000 seedlings were transplanted to a Syn-3 crossing block during September, 1994. The process of roguing was repeated throughout the 1995 growing season up to anthesis and during the harvest to remove those clones with low floret fertility. A 1-acre plot was established from seeds of the Syn-3 crossing block near Brooks Oregon, in the fall of 1995 and the subsequent crop designated breeder seed. Remaining seed from the Syn-3 crossing block is being maintained in cold storage for future breeder seed development.

*Jad  
2/17/05*

'Aztec II' has been observed for three generations past breeder seed and has been found to be uniform and stable. *No variants have been observed in subsequent generations of increase.*

#### Exhibit B

**Statement of Distinctness** - The variety Aztec II is a dark-green, high endophyte content variety of tall fescue that is well-adapted to the tall fescue growing regions of the United States. The major distinct feature of Aztec II over the parent variety, Aztec (never certified) is the high endophyte content and related performance relative to its predecessor (Appendix 1). 'Aztec II' is most similar to 'Bonanza'; however, 'Aztec II' is darker green [6.3 vs. 5.3 (OR, 1997) and 6.3 vs. 4.3 (OR, 1998)] than 'Bonanza'.

Aztec II is one of the finest textured tall fescues presently available in the market (Table 16) and has performed well in all areas tested. Aztec II is also very tolerant of drought compared to other tall fescue varieties (Table 17). Based on the market success obtained by the parent variety Aztec, it is predicted that Aztec II, with its current improvements, will be well-accepted by the turfgrass user.

**Table 1.** Heading date, plant height, Color, and growth habit of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Heading Date (Julian)	Plant Height (cm)	Color †	Growth Habit ‡‡
<b>Aztec II</b>	<b>132.8</b>	<b>97.9</b>	<b>6.3</b>	<b>8.7</b>
Bonanza	132.6	106.8	5.3	8.3
Bonsai	134.5	74.2	7.3	7.3
Crewcut	131.0	102.8	6.0	8.7
KY-31 (E+)	129.8	125.5	2.3	6.3
Mini-Mustang	131.6	90.4	6.3	8.0
Rebel II	130.1	109.2	5.3	6.0
Rebel Jr.	131.7	90.9	6.0	7.7
Silverado	131.4	93.1	6.3	7.7
Shortstop	132.3	99.9	6.0	8.0
LSD (0.05)	1.7	10.1	0.8	1.0

**Table 2.** Heading date, plant height, Color, and growth habit of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Heading Date (Julian)	Plant Height (cm)	Color †	Growth Habit ‡‡
<b>Aztec II</b>	<b>142.4</b>	<b>87.1</b>	<b>6.3</b>	
Bonanza	143.9	100.5	4.3	
Bonsai	144.6	73.3	7.3	
Crewcut	142.8	85.0	5.3	
KY-31 (E+)	141.7	105.6	1.7	
Mini-Mustang	140.8	89.1	5.3	
Rebel II	141.4	96.0	3.7	
Rebel Jr.	142.2	85.2	5.3	
Silverado	143.5	77.6	5.0	
Shortstop	141.9	90.0	5.0	
LSD (0.05)	2.0	11.1	1.0	

† - color ratings from 1-9 with 1 = light green and 9 = very dark green

‡‡ - plant growth habit data was not taken during this season

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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**U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY PROGRAM  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705**

EXHIBIT C  
(TALL & MEADOW FESCUES)

**OBJECTIVE DESCRIPTION OF VARIETY  
TALL & MEADOW FESCUES  
(*Festuca spp.*)**

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Turf Merchants Inc.	TMI-AZII	Aztec II
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)	<u>FOR OFFICIAL USE ONLY</u>	
Turf Merchants, Inc. 33390 Tangent Loop Tangent OR 97389	<u>PVPO NUMBER</u>	
	<b>9900217</b>	

Place the appropriate number that describes the varietal characteristics of this variety in the boxes below. Use leading zeroes when necessary (e.g. 089). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characteristics marked with an asterisk \* are characteristics which should be recorded.

\* 1. SPECIES: (With comparison varieties, use varieties within the species of the application variety)

1 = *F. arundinacea* (Tall)

Turf Types

1 = Kentucky 31    2 = Rebel    3 = Olympic    4 = Bonanza    5 = Arid    6 = Rebel II

7 = Shortstop    8 = Silverado    9 = Rebel Jr.    10 = Mini Mustang    11 = Crewcut    12 = Bonsai

Forage Types

20 = Kentucky 31    21 = Martin    22 = Forager    23 = Mozark

24 = Kenhy    25 = AU Triumph    26 = Fawn    27 = Cajun

2 = *F. pratensis* (Meadow)

30 = Admira    31 = Beaumont    32 = Comtessa    33 = Ensign    34 = Trader

\* 2. CYTOLOGY:

2n=42 Chromosome Number

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

2 Transition Zone     2 West     2 Northeast    Other (Specify): \_\_\_\_\_

\* 4. MATURITY: (Date First Headed, 10% of Panicle Emergence) - Tables 1 and 2

6 Maturity Class    1 = Very early ( )    2 = AU Triumph    3 = Early (Fawn)    4 = K31, Kenhy    5 = Medium (Rebel)

4. MATURITY: (continued)

6 = Bonanza      7 = Late (Silverado)      8 = ( )      9 = Very late

Date Headed May 13 Location Tangent, Oregon

7900217

2 Days earlier than 12 }  
Maturity same as 4 } Comparison Variety  
3 Days later than 1 }

\* 5. MATURE PLANT HEIGHT CM: (Average of 100 culms \* INTERNODE LENGTH CM:

from crown to top of panicle, if panicle is nodding, straighten) (First internode subtending the flag leaf)

Tables 1 and 2

97.9 cm Height      17.1 cm Internode Length

27.6 cm Shorter than 1 }  
Height same as 7 } Comparison Variety  
23.7 cm Taller than 12 }  
4.4 cm Shorter than 1 }  
Length same as 7 } Comparison Variety  
3.7 cm Longer than 12 }

\* HEIGHT AT EAR EMERGENCE CM: (Flag leaf height from crown to flag leaf collar) - Tables 7 and 8

42.1 cm Height  
21.6 cm Shorter than 1 }  
Height same as 11 } Comparison Variety  
15.4 cm Taller than 12 }

\* 6. GROWTH HABIT: (Mature Plants) - Tables 1 and 2

8.7      1 = Prostrate ( )      3 = Semiprostrate ( )      5 = Horizontal ( )  
7 = Semierect (Rebel)      9 = Erect (Mini Mustang)

\* 7. RHIZOMES (Psuedo):

   mm Length      X 1 = Absent ( )      2 = Rare (Rebel)      3 = Common ( )

\* 8. LEAF BLADE: (Tiller leaves/ turf color) Tables 1 and 2

\*6.3 Color:      1 = Light green ( )      3 = Medium light green ( )      5 = Green ( )  
7 = Medium dark green ( )      9 = Very dark green ( )

6.3      Specify rating of comparison variety = Silverado (8)

\*1 Anthocyanin:      1 = Absent ( )      9 = Present ( )

\*1 Basal Hairs:      1 = Absent ( )      9 = Present ( )

\*1 Margins:      1 = Smooth ( )      5 = Semi-rough ( )      9 = Rough ( )

#### 8. LEAF BLADE: (continued) - Tables 5 and 6

4.5 mm Width Class:      1 = Very coarse (    )      3 = Coarse (    )      5 = Medium (    )  
                                        7 = Fine ( X )      9 = Very Fine (    )

\* TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)

\* TILLER LEAF WIDTH MM:

## Tables 5 and 6

## 10.9 cm Tiller Leaf Length

### 3.9 mm Tiller Leaf Width

— 3.4 cm Shorter than 1  
 Length same as 8  
 — 2.7 cm Longer than 12

1.1 mm Narrower than 1 }  
 Width same as 8 } Comparison Variety  
0.2 mm Wider than 12 }

**FLAG LEAF LENGTH CM:**

### Tables 7 and 8

— 7.5 cm Flag Leaf Length

#### FLAG LEAF WIDTH MM:

2.9 mm Flag Leaf Width

3.0 cm Shorter than      6      }  
 Length same as      8      } Comparison Variety  
2.0 cm Longer than      12      }

1.0 mm Narrower than 4 }  
 Width same as 10 } Comparison Variety  
0.3 mm Wider than 12 }

**\* 9. LEAF SHEATH: (Basal Portion)**

\* 1 Anthocyanin (seedling):      1 = Absent (K31)      9 = Present ( )

\* 1 Auricle Hairiness:              1 = Absent ( )              9 = Present ( )

\* 10. PANICLE: (At seed maturity except where noted.) Tables 9 and 10

\***3.5 Shape:**      1 = Narrow-tapering ( )      5 = Ovate ( )    7 = Oblong ( ) 9 = Other specify( )

\*2.7 Type:      1 = Compact (appressed)      5 = Intermediate ( )      7 = Open ( )      9 = Other (specify)

\*8.0 Orientation: 1 = Nodding ( ) 9 = Erect ( )

\*2.0 Branch Pubescence: 1 = Glabrous ( ) 9 = Pubescent ( )

\*1.6 Glume Color (At anthesis):    1 = Yellowish Green    2 = Green    3 = Bluish Green  
    4 = Burnish    5 = Reddish    6 = Other (Specify)

\* 18.8 cm Panicle Length (from base to tip, if nodding, straighten; after anthesis)

5.2 cm Shorter than      4      }  
 Length same as                11      } Comparison Variety  
5.4 cm Longer than      12      }

\* 11. SEED: (With Lemma & Pelea)

9900217

\* 2100 mg per 1000 seeds

400 mg Less than 4

Weight same as 10

200 mg More than 8

Comparison Variety

PALEA: (Keels or Margins)

   Hairs: 1 = Absent ( )

5 = Short (Missouri 96)

9 = Long ( )

LEMMA:

   Hairs: 1 = Absent (Keny) 5 = Several ( )

9 = Many (Missouri 96)

   mm Lemma Length (Mature)

   mm Lemma Width

   mm Shorter than   

   mm Narrower than   

{

Comparison Variety

   mm Longer than   

   mm Wider than   

{

Comparison Variety

\*AWNS: 9 AWNS: 1 = Absent ( ) 9 = Present (Falcon) 100 % Plants with awns

1.63 mm Awn length (Of those present.)

   mm Shorter than 0

{

Length same as 0

Comparison Variety

   mm Longer than 1

12. DISEASE, INSECT, AND NEMATODE REACTION: (0= Not Tested 1= Least Resistant 9= Most Resistant)

0 Melting-out *Drechslera poae*

0 Blind Seed *Gloeotinia temulenta*

5.3 Leaf Spot *D. siccans* (Table 18)

0 Dollar Spot *Lanzia, Mollerdiscus* spp.

0 Net Blotch *D. dictyoides*

0 Stem Rust *Puccinia graminis*

5.5 Brown Patch *Rhizoctonia solani* (Table 19)

0 T. Blight *Typhula incarnata*

0 C. Leaf Spot *Cercospora fectucae*

4.7 Pythium Blight *Pythium* spp. (Table 20)

0 Pink Snow Mold *Gelechia nivalis*

0 Powdery Mildew *Erysiphe graminis*

0 Silver Top *F. tricinctum, F. roseum*

0 Crown Rust *Puccinia coronata*

   Other Disease \_\_\_\_\_

   Other Insect \_\_\_\_\_

   Other Nematode \_\_\_\_\_

## 13. ENVIRONMENTAL STRESS

**Table 17**

7.7 Drought Stress      1 = Susceptible ( )      5 = Tolerant ( )      9 = Resistant ( )

## 13. ENVIRONMENTAL STRESS: (continued)

**Table 14**

5.1 Shade Stress      1 = Susceptible ( )      5 = Tolerant ( )      9 = Resistant ( )

**0** Winter Stress      1 = Susceptible ( )      5 = Tolerant ( )      9 = Resistant ( )

**14. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY.** For the following characteristics, indicate the degree of resemblance with the following scale:

1 = Application variety is less than comparison variety 2 = Same as 3 = More than, better, greater, darker, etc.

Character	Varieties	Rating	Character	Varieties	Rating
Leaf Width			Leaf Color		
Panicle Color			Panicle Shape		
Seed Size			Cold Injury		
Winter Color			Heat		
Disease					

\* 15. EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

Data included for morphological comparisons were generated from a spaced planted nursery of individuals from cultivars cultivated at PickSeed West, Tangent, Oregon. The trial was established in November 1996 and again in November 1997. Both trials were arranged in a randomized complete block design with three replications. Each replication for an entry was represented by 20 individuals, planted into a single row at 24 inches apart within the row. Plant nutrition was 35 pounds of N per acre at transplanting time and again in October 1997. Additionally, 90 pounds N per acre was split applied in the spring of each year, with one-half in March and the other half in April.

Data regarding turf performance were collected as part of a multi-location trial conducted by the National Turfgrass Evaluation Program. This trial was planted in the fall of 1996.

**Table 1.** Heading date, plant height, Color, and growth habit of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Heading Date (Julian)	Plant Height (cm)	Color †	Growth Habit ‡‡
Aztec II	132.8	97.9	6.3	8.7
Bonanza	132.6	106.8	5.3	8.3
Bonsai	134.5	74.2	7.3	7.3
Crewcut	131.0	102.8	6.0	8.7
KY-31 (E+)	129.8	125.5	2.3	6.3
Mini-Mustang	131.6	90.4	6.3	8.0
Rebel II	130.1	109.2	5.3	6.0
Rebel Jr.	131.7	90.9	6.0	7.7
Silverado	131.4	93.1	6.3	7.7
Shortstop	132.3	99.9	6.0	8.0
LSD (0.05)	1.7	10.1	0.8	1.0

**Table 2.** Heading date, plant height, Color, and growth habit of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Heading Date (Julian)	Plant Height (cm)	Color †	Growth Habit ‡‡
Aztec II	142.4	87.1	6.3	
Bonanza	143.9	100.5	4.3	
Bonsai	144.6	73.3	7.3	
Crewcut	142.8	85.0	5.3	
KY-31 (E+)	141.7	105.6	1.7	
Mini-Mustang	140.8	89.1	5.3	
Rebel II	141.4	96.0	3.7	
Rebel Jr.	142.2	85.2	5.3	
Silverado	143.5	77.6	5.0	
Shortstop	141.9	90.0	5.0	
LSD (0.05)	2.0	11.1	1.0	

† - color ratings from 1-9 with 1 = light green and 9 = very dark green

‡‡ - plant growth habit data was not taken during this season

**Table 3.** Glume color, awn length, seed length, seed width, and 1000-seed weight of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Glume † Color	Awn Length	Seed Length	10-Seed Width	1000-seed weight
		mm			(g)
<b>Aztec II</b>	<b>1.7</b>	<b>1.63</b>	<b>5.4</b>	<b>14.0</b>	<b>2.4</b>
Bonanza	1.7	1.26	5.7	13.8	2.8
Bonsai	2.0	1.56	5.3	13.3	2.3
Crewcut	1.6	1.40	5.2	13.8	2.7
KY-31 (E+)	1.5	1.14	5.6	14.7	2.8
Mini-Mustang	1.7	1.16	5.2	13.8	2.3
Rebel II	1.8	1.38	5.7	14.7	3.0
Rebel Jr.	1.5	1.29	5.3	14.2	2.7
Silverado	1.8	1.15	5.5	13.8	2.6
Shortstop	1.9	1.26	5.6	15.2	2.9
LSD (0.05)	0.3	0.27	0.4	1.2	0.3

**Table 4.** Awn length, seed length, seed width, and 1000-seed weight of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Awn Length ††	Seed Length	10-Seed Width	1000-seed weight
	mm			(g)
<b>Aztec II</b>	<b>6.2</b>	<b>12.8</b>	<b>2.1</b>	
Bonanza	6.9	13.5	2.5	
Bonsai	6.9	12.5	2.2	
Crewcut	6.9	10.3	2.2	
KY-31 (E+)	6.8	14.0	2.6	
Mini-Mustang	6.2	13.0	2.1	
Rebel II	6.9	13.7	2.7	
Rebel Jr.	6.2	13.8	2.3	
Silverado	6.2	13.0	1.9	
Shortstop	6.7	13.5	2.4	
LSD (0.05)	0.6	2.1	0.3	

† - color ratings from 1-3 with 1 = light yellowish-green, 2 = med-dark and 3 = purplish, glume color was not scored the second year

†† - awn length was not determined the second year

**Table 5.** Tiller leaf length, tiller leaf width, and internode length of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Tiller Leaf Length	Tiller Leaf Width	Internode Length
	(cm)	(mm)	(cm)
<b>Aztec II</b>	<b>17.5</b>	<b>4.8</b>	<b>16.6</b>
Bonanza	19.9	5.6	18.0
Bonsai	10.3	3.3	11.7
Crewcut	18.1	4.9	17.2
KY-31 (E+)	21.0	6.9	24.0
Mini-Mustang	15.8	4.6	12.9
Rebel II	20.1	5.6	18.7
Rebel Jr.	16.7	5.0	14.6
Silverado	16.9	5.5	16.4
Shortstop	17.2	5.5	16.0
LSD (0.05)	2.9	0.9	2.7

**Table 6.** Tiller leaf length, tiller leaf width and internode length of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Tiller Leaf Length	Tiller Leaf Width	Internode Length
	(cm)	(mm)	(cm)
<b>Aztec II</b>	<b>10.9</b>	<b>3.9</b>	<b>17.1</b>
Bonanza	11.7	5.0	18.5
Bonsai	8.2	3.7	13.4
Crewcut	11.2	4.1	14.8
KY-31 (E+)	14.3	5.0	21.5
Mini-Mustang	11.9	4.0	15.7
Rebel II	15.2	5.5	18.2
Rebel Jr.	13.0	4.2	15.4
Silverado	10.7	3.9	13.7
Shortstop	13.1	4.1	16.5
LSD (0.05)	3.3	0.8	3.0

**Table 7.** Flag leaf length, width and height and branch pubescence of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Flag leaf Width (mm)	Flag Leaf Length (cm)	Flag Leaf Height (cm)	Branch † Pubescence
Aztec II	3.4	13.4	44.6	1.97
Bonanza	3.9	15.2	48.5	2.03
Bonsai	2.1	7.6	29.2	1.83
Crewcut	3.5	13.6	44.9	2.03
KY-31 (E+)	4.8	14.4	66.2	2.13
Mini-Mustang	3.2	12.0	37.7	2.13
Rebel II	3.8	15.8	52.3	1.93
Rebel Jr.	3.5	12.6	38.2	1.63
Silverado	3.9	12.1	40.9	2.27
Shortstop	4.1	12.9	42.4	2.00
LSD (0.05)	1.0	1.9	5.9	0.35

† - branch pubescence ranked from 1-3 with 1 = smooth, 2 = intermediate, and 3 = rough

**Table 8.** Flag leaf length, width, and height of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Flag leaf Width (mm)	Flag Leaf Length (cm)	Flag Leaf Height (cm)
Aztec II	2.9	7.5	42.1
Bonanza	3.9	10.1	49.7
Bonsai	2.6	5.5	31.7
Crewcut	3.4	7.7	37.7
KY-31 (E+)	3.5	9.8	53.5
Mini-Mustang	2.8	7.6	41.5
Rebel II	3.9	10.5	45.3
Rebel Jr.	3.4	8.8	40.5
Silverado	3.1	7.4	34.4
Shortstop	3.5	8.7	42.7
LSD (0.05)	0.9	2.0	8.2

**Table 9.** Panicle shape, panicle orientation, panicle length, number of branches at lowest panicle whorl, and panicle type of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Panicle † Shape	Panicle †† Orientation	Panicle Length	Panicle Branch no. of lowest whorl	Panicle ‡ Type
(cm)					
Aztec II	5.4	5.9	21.2	1.83	5.0
Bonanza	5.4	5.3	24.9	1.87	5.6
Bonsai	4.9	8.1	13.2	1.60	4.9
Crewcut	5.2	6.1	22.5	1.88	5.4
KY-31 (E+)	5.1	4.1	26.9	1.88	5.7
Mini-Mustang	5.3	5.9	19.7	1.90	5.5
Rebel II	5.1	5.1	23.4	1.82	5.4
Rebel Jr.	5.1	7.3	20.9	1.92	5.2
Silverado	5.0	6.5	19.0	1.80	5.3
Shortstop	5.0	6.9	21.4	1.78	5.3
LSD (0.05)	0.4	1.4	2.0	0.18	0.5

**Table 10.** Panicle shape, panicle orientation, panicle length, number of branches at lowest panicle whorl, and panicle type of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Panicle Shape	Panicle Orientation	Panicle Length	Panicle Branch no. of lowest whorl	Panicle Type
(cm)					
Aztec II	3.5	8.0	18.8	1.78	2.7
Bonanza	4.7	6.9	24.0	1.92	3.7
Bonsai	3.8	8.3	13.4	1.45	2.7
Crewcut	3.5	7.9	18.7	1.78	3.1
KY-31 (E+)	3.9	7.6	23.4	1.78	3.4
Mini-Mustang	4.3	8.0	19.3	1.77	3.4
Rebel II	4.2	6.8	21.7	1.92	2.8
Rebel Jr.	3.8	8.0	20.2	1.90	3.1
Silverado	3.6	8.4	18.1	1.72	2.7
Shortstop	4.0	8.1	20.4	1.31	2.9
LSD (0.05)	0.9	0.9	3.4	0.39	1.0

† - panicle shape; 1=narrow tapering, 5=ovate, 7=oblong, 9=other

†† - panicle orientation; 1=nodding, 2=erect

‡ - panicle type; 1=compact, 5=intermediate, 7=open, 9=other

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**Table 11.** Anther color of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Yellowish-Green	Green	Bluish-green	Purplish	Reddish	Other
%						
<b>Aztec II</b>	<b>97</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>
Bonanza	95	3	0	2	0	0
Bonsai	97	0	0	3	0	0
Crewcut	100	0	0	0	0	0
KY-31 (E+)	100	0	0	0	0	0
Mini-Mustang	98	2	0	0	0	0
Rebel II	100	0	0	0	0	0
Rebel Jr.	100	0	0	0	0	0
Silverado	98	0	0	2	0	0
Shortstop	95	0	0	5	0	0

**Table 12.** Anther color of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Yellowish-Green	Green	Bluish-green	Purplish	Reddish	Other
%						
<b>Aztec II</b>	<b>96</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Bonanza	94	6	0	0	0	0
Bonsai	97	3	0	0	0	0
Crewcut	97	3	0	0	0	0
KY-31 (E+)	97	3	0	0	0	0
Mini-Mustang	99	1	0	0	0	0
Rebel II	95	5	0	0	0	0
Rebel Jr.	95	5	0	0	0	0
Silverado	97	3	0	0	0	0
Shortstop	97	3	0	0	0	0

Table 13

TABLE 3. (CONT'D)

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS  
GROWN IN FULL SUN AT TWENTY-SEVEN LOCATIONS IN THE U.S.  
1997 DATA

QUALITY RANKINGS; 1=HIGHEST MEAN: STATE LOCATIONS REPORTING

NAME	AR1	CA1	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	ME1	MI1	MO1	MO3
PST-523	29.0	15.5	27.5	37.0	16.0	17.5	93.0	42.0	29.5	80.0	22.5	124.5	8.5	60.5	95.5
ATF-196	54.0	106.0	40.0	74.5	86.0	127.0	13.5	71.0	123.5	80.0	41.0	21.0	73.0	14.0	67.0
DUSTER	62.0	81.5	94.5	96.5	21.0	65.0	28.5	42.0	43.0	65.0	22.5	53.5	95.5	70.5	40.5
JAGUAR 3	52.0	24.0	40.0	5.0	69.5	107.0	24.0	23.5	43.0	27.0	64.0	105.0	113.5	70.5	78.0
ARID 2 (J-3)	122.5	46.5	1.0	121.0	128.5	111.5	26.0	113.5	95.0	42.5	94.5	53.5	90.0	112.5	54.0
SAFARI	43.5	74.5	72.0	82.5	6.0	2.0	51.0	68.0	101.5	16.0	85.5	3.0	4.5	115.5	
AZTEC II (TM1-AZ)	90.0	15.5	66.0	82.5	27.0	65.0	38.5	35.5	56.5	80.0	120.0	53.5	49.0	54.0	103.0
TULSA	90.0	7.5	123.5	74.5	55.0	47.0	7.0	35.5	68.0	60.0	31.0	53.5	29.5	65.0	78.0
PST-5E5	43.5	103.5	40.0	9.5	92.0	65.0	103.0	28.5	2.0	42.5	44.5	85.5	107.0	54.0	22.0
TAR HEEL	26.0	55.0	20.5	40.0	92.0	17.5	114.5	60.0	18.0	42.5	46.0	53.5	58.5	108.5	29.5
FALCON 11	62.0	78.0	89.5	40.0	30.5	3.0	72.0	60.0	11.0	95.5	2.5	71.5	40.5	30.5	106.0
OFI-96-32	67.5	24.0	24.5	67.5	55.0	13.0	20.0	60.0	60.0	11.0	71.5	89.0	53.5	52.0	23.0
RESERVE (ATF-182)	22.5	106.0	119.0	30.0	119.5	24.0	24.0	15.0	60.0	43.0	71.5	57.0	53.5	35.5	120.0
MB 215	67.5	113.0	31.0	82.5	86.0	60.0	51.0	79.0	77.5	37.5	73.5	53.5	73.0	115.5	84.0
SRX 8500	33.0	68.0	104.5	94.0	62.0	13.0	97.5	79.0	77.5	34.5	82.5	21.0	93.5	87.5	67.0
ISI-TF11-	62.0	68.0	114.0	24.0	9.5	8.0	54.0	104.5	14.0	65.0	16.0	96.0	67.0	24.0	56.5
BAR FA6 US2U	67.0	68.0	108.0	24.0	82.0	111.5	124.0	35.5	56.5	21.0	89.0	53.5	52.0	23.0	92.5
ANTHEM II (TM1 - FMN)	83.0	28.0	56.5	115.0	55.0	107.0	30.0	110.0	18.0	60.0	73.5	53.5	55.5	120.0	
BRAVO (RG-93)	57.0	51.0	81.5	26.5	35.5	47.0	38.5	19.0	56.5	53.0	73.5	34.5	84.0	80.5	78.0
PICK GA-96	36.5	51.0	81.5	11.0	116.0	56.0	116.5	23.5	109.5	50.5	31.0	53.5	113.5	102.0	84.0
TITAN 2	78.5	94.0	22.5	90.0	1.0	1.0	26.0	85.0	18.0	116.0	5.0	105.0	5.0	70.5	123.0
PST-5M5	67.5	86.5	75.5	22.0	86.0	97.0	42.0	42.0	6.5	34.5	111.0	65.5	123.5	75.0	47.0
PICK FA 20-92	104.5	42.0	56.5	118.0	121.0	96.0	28.5	43.0	60.0	60.0	73.5	53.5	47.0	46.0	84.0
WPEZE (WVPB-10)	101.5	35.5	56.5	56.0	30.5	28.0	49.0	104.5	77.5	71.5	64.0	71.5	73.0	19.0	95.5
PICK FA 6-91	98.0	86.5	26.0	61.5	99.5	90.0	99.0	94.5	56.5	34.5	64.0	34.5	35.5	115.5	29.5
ZPS-5LZ	11.0	101.0	81.5	56.0	46.0	97.0	65.0	117.0	113.0	17.5	82.5	34.5	84.0	102.0	40.5
LEPRECHAUN	74.5	35.5	22.5	28.0	46.0	38.5	83.0	60.0	56.5	106.0	9.5	21.0	103.0	87.5	8.5
BAR FA6D USA	124.5	86.5	89.5	56.0	105.0	103.5	93.0	42.0	18.0	8.5	64.0	53.5	19.5	87.5	40.5
FINE LAWN PETITE	110.5	60.5	100.5	34.5	23.5	97.0	47.0	47.5	14.0	65.0	73.5	34.5	67.0	9.5	78.0
BAR FA6 US1	43.5	103.5	31.0	90.0	112.5	124.0	127.0	35.5	23.5	2.5	122.5	85.5	122.0	80.5	40.5
SHORTSTOP 11	116.0	55.0	97.5	124.5	30.5	69.0	109.5	104.5	125.5	92.0	57.0	12.5	80.0	46.0	63.0
ALAMO E	51.0	68.0	97.5	56.0	69.5	38.5	49.0	120.0	115.5	86.0	14.0	121.5	28.0	16.0	99.0
ISI-TF9	78.5	11.0	123.5	82.5	102.5	38.5	70.5	79.0	34.5	80.0	89.0	85.5	19.5	54.0	70.5
SUNPRO	6.0	101.0	2.0	74.5	122.0	76.0	128.0	7.0	119.5	56.5	94.5	21.0	93.5	108.5	73.5
ISI-TF10	26.0	81.5	89.5	67.5	105.0	100.5	85.0	88.5	56.5	85.0	120.0	71.5	67.0	37.5	63.0
GOOD-EN (KODS 94-14)	62.0	20.5	43.5	96.5	86.0	81.5	93.0	120.0	88.5	95.5	102.5	53.5	40.5	67.0	
COCHISE II	54.0	81.5	14.5	67.5	110.0	76.0	67.5	104.5	99.5	106.0	22.5	21.0	8.5	92.0	88.5
PSII-TF-9	83.0	115.5	126.0	90.0	46.0	46.0	38.5	32.0	60.0	34.5	113.5	31.0	53.5	67.0	73.5
ATF-188	122.5	32.5	5.5	77.0	99.5	65.0	77.0	19.0	99.5	110.5	59.0	56.5	56.5	98.0	88.5
OFI-FWY	10.0	78.0	110.0	96.5	69.5	71.5	104.0	42.0	29.5	71.5	16.0	96.0	99.5	54.0	49.5
BAR FA6 US6F	14.5	11.0	27.5	34.5	40.5	47.0	107.5	88.5	95.0	50.5	49.0	71.5	118.5	98.0	67.0
PICK FA XK-95	7.5	68.0	40.0	72.0	119.5	97.0	122.0	117.0	77.5	71.5	124.5	85.5	103.0	41.0	63.0
PICK FA 15-92	104.5	74.5	31.0	108.0	123.0	90.0	62.5	60.0	104.0	95.5	128.5	12.5	84.0	120.0	47.0
MARKSMAN	22.5	60.5	122.0	40.0	12.0	42.0	60.0	43.0	80.0	127.0	34.5	103.0	54.0	109.0	111.0
EC-101	110.5	86.5	72.0	82.5	46.0	65.0	19.0	77.5	65.0	65.0	89.0	96.0	95.0	95.0	

TABLE 3. (CONT'D)

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS  
GROWN IN FULL SUN AT TWENTY-SEVEN LOCATIONS IN THE U.S.  
1997 DATA

## QUALITY RANKINGS; 1=HIGHEST MEAN: STATE LOCATIONS REPORTING

NAME	NE1	NJ1	NJ2	NY1	OH1	OK1	RI1	SC2	UT1	VA1	VA4	WA1	MEAN
PST-523	72.0	47.0	55.5	80.0	94.5	28.0	27.0	94.0	41.0	35.5	45.0	85.0	46
ATF-196	47.5	60.0	49.5	39.5	106.0	55.0	30.0	31.5	31.5	62.0	38.0	24.0	47
DUSTER	20.0	87.0	84.0	54.5	57.0	87.0	9.5	113.5	20.0	102.5	23.0	99.5	48
JAGUAR 3	8.5	90.5	103.0	30.5	24.0	16.5	91.0	113.5	112.5	75.0	23.0	50.5	49
ARID 2 (J-3)	34.0	8.5	49.5	22.5	24.0	78.5	7.5	43.0	20.0	81.5	31.5	38.5	50
SAFARI	96.5	118.5	99.5	35.5	78.0	1.5	104.0	94.0	60.0	19.5	45.0	116.5	51
AZTEC II (TM1-AZ)	104.0	47.0	43.5	35.5	42.5	1.5	51.0	68.5	41.0	14.0	103.5	38.5	52
TULSA	80.5	78.5	49.5	118.5	8.5	43.0	31.5	31.5	66.0	55.0	50.5	53	
PST-5E5	101.5	54.0	40.0	30.5	57.0	50.5	76.5	76.5	113.5	31.5	119.0	45.0	54
TAR HEEL	101.5	28.5	17.0	90.0	57.0	44.0	64.0	31.5	77.0	39.0	31.5	85.0	55
FALCON II	20.0	93.0	88.0	70.5	114.5	38.0	81.5	80.0	68.0	3.5	45.0	99.5	56
OPI-96-32	69.0	87.0	79.5	80.0	57.0	16.5	68.0	68.5	60.0	53.5	55.0	116.5	57
RESERVE (ATF-182)	113.5	105.0	92.0	17.5	42.5	8.5	58.0	31.5	60.0	25.5	2.0	69.0	58
MB 215	14.5	25.0	37.5	105.0	2.5	120.0	91.0	27.0	106.5	53.5	84.5	38.5	59
SRX 8500	57.5	37.0	17.0	70.5	114.5	120.0	30.0	113.5	31.5	16.5	23.0	57.0	60
ISI-TF11	85.0	87.0	92.0	65.0	24.0	14.0	98.0	125.0	41.0	11.0	112.5	112.0	61
BAR FA6 US2U	20.0	6.0	49.5	35.5	120.5	32.0	58.0	94.0	47.5	75.0	66.0	6.5	62
ANTHEM II (TM1-FMN)	99.0	22.0	73.5	70.5	94.5	44.0	58.0	23.0	31.5	62.0	55.0	85.0	63
BRAVO (RG-93)	123.0	78.5	55.5	3.0	42.5	115.0	104.0	94.0	106.5	41.0	112.5	69.0	64
PICK GA-96	14.5	54.0	69.0	8.0	106.0	87.0	86.0	105.0	31.5	102.5	75.5	50.5	65
TITAN 2	85.0	116.0	119.5	17.5	106.0	101.5	104.0	31.5	117.5	19.5	116.5	116.5	66
PST-5M5	40.0	84.5	55.5	126.5	34.0	60.5	113.0	125.0	31.5	62.0	10.5	38.5	67
PICK FA 20-92	20.0	25.0	12.0	39.5	24.0	87.0	51.0	80.0	102.0	125.0	94.5	94.5	68
WEPEZE (WVPB-1C)	113.5	83.0	60.5	22.5	94.5	44.0	58.0	113.5	77.0	14.0	66.0	99.5	69
PICK FA 6-91	36.0	6.0	60.5	125.0	78.0	78.5	4.0	15.5	10.0	128.0	126.5	14.0	70
ZPS-5L2	29.0	10.5	24.0	94.0	78.0	110.0	117.5	113.5	60.0	127.0	23.0	69.0	71
LEPRECHAUN	85.0	99.5	106.0	22.5	78.0	98.0	126.0	23.0	77.0	19.5	84.5	24.0	72
BAR FA6D USA	66.5	13.5	28.5	113.0	78.0	50.5	91.0	31.5	84.0	58.5	66.0	50.5	73
FINELEANN PETITE	107.0	72.5	81.5	76.5	14.5	32.0	27.0	125.0	124.5	72.5	103.5	99.5	74
BAR FA6 US1	20.0	33.5	17.0	26.5	34.0	107.0	117.5	94.0	20.0	115.5	121.5	6.5	
SHORTSTOP 11	57.5	13.5	79.5	17.5	124.5	7.5	10.5	7.5	77.0	78.0	94.5	24.0	76
ALAMO E	88.5	72.5	66.5	97.5	34.0	78.5	71.0	23.0	24.0	88.0	66.0	57.0	77
ISI-TF9	61.5	54.0	92.0	80.0	24.0	38.0	76.5	125.0	102.0	32.5	66.0	57.0	78
SUNPRO	12.0	25.0	64.0	90.0	94.5	78.5	112.0	113.5	16.0	44.0	45.0	24.0	
ISI-TF10	96.5	31.0	33.5	45.5	106.0	78.5	65.0	125.0	60.0	53.5	109.0	38.5	80
GOOD-EN (KOOS 94-14)	40.0	63.0	60.5	45.5	34.0	122.0	110.0	15.5	92.5	32.5	116.5	99.5	81
COCHISE 11	92.0	97.0	112.5	13.5	57.0	115.0	81.5	125.0	102.0	102.5	75.5	57.0	82
PSII-TF-9	111.0	103.0	76.5	26.5	94.5	107.0	76.5	68.5	20.0	53.5	103.5	99.5	83
ATF-188	95.0	90.5	99.5	42.5	57.0	44.0	51.0	31.5	84.0	75.0	4.0	69.0	84
OPI-FWY	40.0	93.0	43.5	54.5	106.0	23.5	128.0	43.0	92.5	110.0	66.0	85.0	85
BAR FA6 US6F	115.0	41.5	37.5	129.0	24.0	60.5	22.5	94.0	68.0	107.0	84.5	85.0	86
PICK FA XK-95	82.0	8.5	26.5	65.0	24.0	87.0	58.0	94.0	71.0	35.5	66.0	85.0	87
PICK FA 15-92	52.5	31.0	99.5	76.5	78.0	93.0	2.0	15.5	14.0	124.0	112.5	69.0	88
MARXS MAN	64.0	103.0	95.5	97.5	94.5	98.0	117.5	15.5	36.5	16.5	75.5	69.0	89
EC-101	52.5	89.0	76.5	107.0	42.5	69.0	43.0	68.5	77.0	44.0	84.5	99.5	

Table 13

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Table 14

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TABLE 4.

MEAN TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS 2/  
 GROWN IN DENSE SHADE AT MISSISSIPPI ST., MS 1/  
 1997 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS 2/						MEAN
	JAN	FEB	MAR	APR	MAY	JUN	
ARID	4.0	5.0	7.7	6.7	6.3	6.7	6.0
TITAN 2	4.0	4.7	7.0	6.7	6.7	7.0	6.0
J-101	4.0	4.7	6.3	6.0	7.0	6.3	5.9
SAFARI	4.0	5.3	6.7	6.3	7.0	5.0	5.8
PLANTATION (PENNINGTON-1901)	4.0	4.0	6.0	5.7	7.3	7.0	5.8
REMBRANDT (LTP-4026 E+)	4.0	4.0	6.0	6.0	7.0	5.7	5.8
MB 215	4.0	4.7	6.3	6.0	7.0	5.3	5.8
SRX 8500	4.0	4.7	5.7	5.3	6.3	5.7	5.8
ISI-TF9	4.0	4.7	6.3	6.3	7.0	5.7	5.8
ATF-022	3.7	4.0	5.7	6.7	7.0	5.7	5.7
SHENANDOAH	3.7	5.0	7.7	6.3	7.0	6.7	5.7
SR 8210	4.0	4.7	6.3	6.3	7.3	6.0	5.7
OFL-FWY	3.7	4.3	6.0	5.7	7.0	6.7	5.8
ANTHEM II (TM1-FMN)	4.3	5.0	6.0	7.0	7.0	6.3	5.6
MB 211	4.0	4.7	6.0	6.3	7.0	6.7	5.6
PRO 8430	4.0	5.0	6.3	6.7	7.0	6.0	5.6
KENTUCKY-31 W/ENDO.	4.0	5.0	7.0	5.7	6.0	5.0	5.6
FALCON 11	3.7	4.0	6.7	6.3	7.0	6.0	5.6
LEPRECHAUN	4.3	4.7	6.7	6.0	7.0	6.7	5.5
MB 212	4.3	4.7	6.7	6.0	7.0	6.7	5.5
MB 214	3.7	4.0	5.7	5.3	6.7	5.7	5.5
REGIMENT	3.7	4.3	6.7	6.3	7.0	5.3	5.7
BAR FA 6D	3.7	5.0	5.7	5.7	7.0	5.0	4.7
EC-101	4.7	5.0	6.7	6.0	7.0	6.3	5.5
KITTY HAWK S.S.T. (SS42DW)	3.7	4.7	6.0	5.7	7.0	5.7	5.5
RESERVE (ATF-182)	3.3	4.3	6.0	6.0	7.0	6.0	5.5
R5AU	3.7	4.7	5.7	5.7	7.0	5.3	5.2
EMPRESS	3.7	4.0	6.0	6.0	7.0	5.0	5.2
ISI-TF10	3.7	4.3	5.7	6.0	6.7	5.7	5.2
PSII-TF-9	3.7	4.3	6.3	6.0	7.0	5.7	5.5
BAR FA6 US3	3.7	4.0	5.7	5.3	7.3	4.0	4.8
ATF-038	4.3	4.3	6.0	6.0	7.0	5.7	5.0
MASTERPIECE (LTP-SD-TF)	4.0	4.7	6.3	5.7	7.0	6.7	5.7
CU9501T	4.0	4.3	5.7	5.0	7.0	5.3	5.4
MARKSMAN	4.0	5.0	6.3	6.3	7.0	6.7	5.4
ISI-TF11	4.0	4.3	6.7	6.3	7.0	5.3	5.4
JAGUAR 3	4.0	4.3	6.0	6.0	7.0	5.7	5.3
MB 210	4.0	4.7	6.0	6.0	7.0	6.7	5.4
WOLFPACK (PST-R5TK)	4.0	4.3	6.0	5.7	7.0	5.7	5.4
OFL-96-31	4.0	4.0	5.7	5.3	7.0	5.0	5.3
BAR FA 6LV	4.0	4.3	6.0	6.0	7.0	6.7	5.2
CORONADO	3.7	4.0	5.7	5.7	7.0	5.7	5.3
APACHE II	4.3	4.7	5.7	6.0	7.0	6.7	5.2
PST-5ES	3.7	4.0	6.3	5.7	7.0	6.7	5.3

TABLE 4.  
(CONT'D.)MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS  
GROWN IN DENSE SHADE AT MISSISSIPPI ST., MS  
1997 DATA

## TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
SOUTHERN CHOICE	3.3	3.7	6.0	5.7	7.0	7.0	6.0	5.7	4.3	5.0	5.0	5.2	5.3
ALAMO E	4.0	4.3	6.0	5.3	7.0	6.7	5.3	5.7	4.7	4.7	4.8	5.2	5.3
AV-1	4.0	4.7	6.7	6.3	6.3	6.3	4.7	4.7	4.0	4.0	4.2	5.2	5.3
GAZELLE	3.0	4.3	5.7	5.7	7.7	6.7	5.3	5.0	4.7	5.0	5.0	5.3	5.3
ARABIA (J-5)	3.7	3.7	5.3	5.0	7.0	6.7	5.3	5.7	5.0	5.0	5.0	5.3	5.3
DLF-1	3.3	3.3	6.0	5.3	6.0	6.7	6.0	6.0	5.3	5.0	5.2	5.3	5.3
FINELAWN PETITE	3.7	4.0	5.7	5.3	7.0	7.0	5.3	5.7	5.7	5.2	5.5	5.5	5.3
MUSTANG II	3.5	4.0	5.7	5.7	7.0	7.0	5.3	5.7	5.0	5.0	5.3	5.3	5.3
GENESIS	4.0	4.3	6.7	5.7	7.0	7.0	5.7	5.0	4.7	4.7	4.7	5.2	5.3
PST-523	4.0	4.3	6.0	5.3	7.0	7.0	5.7	5.3	5.3	5.3	4.8	5.5	5.3
ATF-192	3.7	4.0	5.7	5.3	7.0	7.0	5.3	5.3	4.3	4.7	5.0	5.0	5.2
PIXIE E+	3.7	4.0	5.7	5.3	7.0	7.0	5.3	5.7	5.0	5.0	5.2	5.2	5.2
JSC-1	3.5	4.0	5.7	5.7	7.0	7.0	5.3	5.7	4.7	5.3	5.0	5.3	5.2
PICK FA 20-92	3.7	3.7	5.7	4.7	7.0	6.0	6.3	5.3	4.3	5.0	4.8	5.3	5.2
ZPS-512	3.7	3.7	5.3	5.3	7.0	7.0	6.7	5.0	4.7	4.7	4.8	5.0	5.2
WVPB-1B	4.0	4.3	6.7	5.7	7.0	7.0	5.7	5.0	4.7	4.3	4.7	5.2	5.2
TULSA	3.3	4.0	5.7	5.3	7.0	7.0	5.3	5.7	5.7	5.0	4.7	5.0	5.2
ATF-188	3.3	4.3	5.7	5.7	7.0	6.0	6.7	5.3	5.3	5.0	5.3	5.2	5.2
GOOD-EN (KOOS 94-14)	3.7	3.7	6.0	5.3	7.0	6.7	5.7	5.7	5.7	5.0	4.7	5.3	5.2
EA 41	4.0	4.0	6.0	5.3	7.0	6.7	5.7	5.7	5.7	5.3	5.0	4.8	5.3
TA-7	4.0	4.0	5.7	5.3	7.0	7.0	5.3	5.3	4.7	5.3	4.7	5.3	5.2
BAR FA6D USA	3.0	3.0	5.7	4.3	6.0	6.0	6.3	5.3	5.3	4.7	4.7	4.5	5.2
PST-510	3.3	3.7	5.7	5.7	7.0	6.7	6.7	5.0	5.7	5.0	5.3	5.2	5.2
AA-983	3.3	3.7	5.7	5.0	7.0	7.0	6.0	5.7	5.7	5.0	5.0	5.2	5.2
BANDANA (PST-R5AE)	3.7	4.0	6.0	5.7	7.0	7.0	6.0	5.7	5.7	5.3	5.0	5.0	5.1
DUSTER	3.7	3.7	5.3	5.3	7.0	6.7	5.7	5.7	5.7	5.3	5.3	5.0	5.1
SRX 8084	3.3	4.0	6.0	5.7	7.0	7.0	5.3	5.3	4.7	4.7	4.7	5.0	5.2
SUNPRO	3.0	3.7	5.7	5.0	7.0	6.7	5.7	5.7	5.3	5.0	4.7	4.8	5.0
PICK GA-96	3.0	3.7	5.7	5.0	7.0	6.3	5.3	5.3	5.0	5.0	4.8	5.2	5.1
AZTEC 11 (TMI-AZ)	4.0	4.7	6.7	6.7	7.0	6.7	5.0	4.0	4.3	5.0	5.0	5.2	5.1
PICK RT-95	3.7	4.0	5.7	4.7	6.7	7.3	5.7	5.7	4.7	4.0	4.3	4.8	5.1
REBEL SENTRY (AA-A91)	3.7	4.3	5.7	5.0	7.0	7.0	5.7	5.7	5.7	5.0	4.8	5.2	5.1
OF1-96-32	4.0	4.3	6.0	6.3	7.0	6.7	5.0	4.7	4.7	5.0	4.5	4.8	5.1
JTF-FC-96	3.3	4.0	5.7	6.0	7.0	7.0	5.7	5.7	5.0	4.3	4.3	4.8	5.1
LION	3.3	4.0	5.7	5.3	7.0	7.0	6.0	5.7	4.7	5.0	4.8	5.2	5.1
REBEL 2000 (AA-989)	3.3	4.0	5.7	5.3	6.7	6.3	5.7	5.7	5.7	4.7	4.7	5.0	5.1
BAR FA6 US1	3.7	4.0	5.7	4.7	6.3	6.7	5.7	5.7	5.3	5.7	5.0	5.5	5.1
RENEGADE	3.7	4.0	6.0	5.7	7.0	7.0	5.7	5.7	5.3	4.3	4.7	5.0	5.2
TOMAHAWK-E	3.3	4.0	5.3	5.7	7.0	6.7	5.3	5.3	4.3	4.7	5.0	5.1	5.1
PST-5M5	4.0	4.3	5.7	5.7	7.0	7.0	5.7	5.7	5.0	5.0	4.8	5.2	5.1
ARD 3 (J-98)	3.3	4.0	5.7	5.0	7.0	7.0	5.3	5.0	4.7	4.7	5.0	5.1	5.1
DP 50-9011	3.3	4.0	6.3	5.7	7.0	6.7	5.3	5.0	4.3	4.3	4.7	4.8	5.1
PSII-TF-10	3.3	4.0	5.7	5.7	7.0	7.0	5.7	5.3	4.7	4.3	4.8	4.7	5.1
CORONADO GOLD (PST-5RT)	4.3	4.7	6.0	5.3	7.0	7.0	5.3	5.0	4.7	4.7	4.5	5.0	5.1
COCHISE II	3.7	4.0	5.7	5.0	7.0	6.7	5.3	5.7	4.7	5.0	5.0	5.0	5.0

Table 14

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TABLE 4:  
(CONT'D)MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS  
GROWN IN DENSE SHADE AT MISSISSIPPI ST., MS

1997 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MILLENNIUM (TM1-RBR)	3.7	3.3	5.3	5.0	7.0	7.0	6.0	6.0	5.3	5.3	5.0	5.2	5.0
PC-AO	4.0	4.3	6.3	6.0	6.7	6.3	5.3	4.7	4.7	5.0	4.3	5.3	5.0
TWILIGHT 11 (TM1-TW)	3.3	4.7	5.3	4.7	7.0	7.0	5.7	5.3	5.0	5.0	4.7	5.2	5.0
WVPB-1D	3.3	4.0	6.0	5.7	6.7	6.7	5.7	5.0	5.0	5.0	4.8	5.0	5.0
MB 29	3.0	3.3	5.3	5.7	5.3	7.0	6.0	6.0	5.3	5.3	5.0	5.0	5.0
ATF-257	3.7	4.3	5.7	5.7	6.7	7.0	5.0	5.0	4.3	5.0	5.0	5.0	5.0
PICK FA B-93	3.7	4.3	5.3	5.3	7.0	6.7	4.3	5.3	4.7	4.7	4.3	4.8	5.0
CU9502T	3.0	3.7	6.0	5.3	7.0	6.7	4.3	5.3	4.7	4.7	4.3	5.2	5.0
JTTFA-96	3.7	4.3	6.3	6.0	6.3	6.7	5.3	5.0	5.0	5.0	4.7	5.0	5.0
OFI-951	3.7	4.0	6.0	6.0	7.0	6.7	5.3	5.3	4.3	4.3	4.5	4.7	5.0
OFI-951	3.7	3.7	5.3	5.3	7.0	6.3	4.3	4.7	4.3	4.0	4.5	4.8	5.0
BONSAI 2000 (BULLET)	4.0	4.3	5.7	6.0	7.0	6.7	4.7	4.7	4.0	4.0	4.3	4.7	5.0
MB 213	3.7	4.0	5.7	5.0	7.0	6.3	6.0	5.0	4.3	4.0	4.3	4.7	5.0
WPEZE (WVPB-1C)	3.3	3.7	5.7	5.0	6.7	7.0	5.7	5.7	4.7	5.0	4.7	4.7	5.0
BRAVO (RG-93)	4.3	4.7	6.3	6.0	6.7	6.7	4.7	4.7	4.3	4.0	4.0	4.8	4.9
MB 28	3.7	4.0	5.7	5.7	7.0	7.0	5.3	5.3	4.7	4.7	4.5	4.8	4.9
DP 7952	3.3	3.7	6.0	5.7	6.0	6.0	5.3	5.3	3.7	3.7	4.5	4.7	5.0
WRS2	3.0	3.7	5.7	5.3	7.0	7.0	6.0	5.3	4.7	4.7	4.3	4.7	4.9
TAR HEEL	3.0	3.3	5.7	4.7	7.0	7.0	5.7	5.7	5.7	5.0	4.7	4.7	4.9
ATF-196	3.3	3.3	5.3	4.7	7.0	7.0	6.0	5.7	5.7	5.0	4.7	4.7	4.9
MB 26	3.0	3.7	5.3	4.7	7.0	7.0	5.7	5.7	5.0	5.3	4.7	5.2	4.9
SHORTSTOP II	3.0	4.0	5.3	4.7	7.0	7.0	5.7	5.7	5.0	4.7	4.5	5.0	4.9
COWSTOCK (SSDE31)	3.7	4.3	6.3	5.7	7.0	7.0	5.3	4.7	4.3	4.7	4.2	5.0	4.9
ATF-253	3.3	4.0	5.3	5.3	6.7	7.0	5.7	5.7	5.0	4.7	4.7	4.7	4.9
BAR FA 6 US6F	3.0	3.7	5.7	5.0	7.0	6.3	5.0	5.3	4.3	4.3	4.2	4.8	4.8
CROSSFIRE II	3.7	4.0	5.7	5.7	7.0	6.3	5.3	4.7	4.7	4.7	4.5	4.8	4.8
ATF-020	3.3	3.3	5.3	5.7	7.0	7.0	5.0	5.3	4.0	4.0	4.5	4.8	4.8
BAR FA 6 US2U	3.3	4.0	5.3	5.0	7.0	7.0	5.7	5.3	4.0	4.0	4.5	4.8	4.8
MB 216	3.3	3.7	5.0	5.7	7.0	6.7	5.7	5.3	5.0	5.0	4.5	4.8	4.8
PICK FA 6-91	3.7	3.3	5.3	4.7	6.7	7.0	5.7	5.3	5.0	5.0	4.5	5.0	4.8
ARID 2 (J-3)	3.7	3.7	5.7	5.3	7.0	6.0	4.3	4.3	4.3	5.0	4.5	4.8	4.8
COYOTE	3.3	3.3	5.3	4.3	6.7	7.0	5.7	5.3	3.7	4.3	4.2	4.8	4.8
ZPS-2PTF	3.7	4.0	5.7	4.7	7.0	6.3	5.3	5.3	4.7	5.0	4.3	4.8	4.8
BONSAI	3.3	3.3	5.7	5.7	7.0	6.0	5.0	4.7	4.7	4.2	4.2	4.7	4.7
PICK FA XK-95	3.0	3.0	5.0	4.7	7.0	6.3	5.3	5.3	4.3	4.0	3.8	4.5	4.7
EQUINOX (TM1-N91)	4.0	4.0	5.7	5.3	6.7	6.3	4.7	4.7	4.3	5.0	4.5	4.8	4.7
WZ3-275	3.7	3.7	5.3	4.7	6.7	7.0	5.7	5.7	5.0	4.7	3.8	4.0	4.6
PICK FA 15-92	3.7	3.3	4.7	4.7	6.7	6.0	4.3	4.7	4.0	4.7	4.0	4.5	4.6
PICK FA N-93	3.0	3.3	4.7	4.3	5.7	6.0	4.7	4.7	4.0	4.0	4.0	4.8	4.5
PICK FA UT-93	2.3	3.0	4.3	4.7	5.7	6.0	4.7	4.7	4.7	4.0	3.5	4.2	4.0
LSD VALUE	1.1	1.2	1.1	1.3	0.5	0.8	1.2	1.3	1.4	1.4	1.2	1.4	1.0
C.V. (%)	19.0	18.5	12.1	15.1	4.8	7.4	14.1	14.9	17.0	18.1	24.8	20.8	17.0

- 1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).
- 2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

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TABLE 20.

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS  
NOT IRRIGATED OR ONLY DURING SEVERE STRESS 1/  
1997 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/									
NAME	MI1	SC2	VA1	MEAN	NAME	MI1	SC2	VA1	MEAN
REMBRANDT (LTP-4026 E+)	8.5	6.3	4.3	6.2	OFI-931	7.8	5.0	5.4	3.7
PLANTATION (PENNINGTON-1901)	8.4	5.3	5.7	4.3	ANTHEM II (TMI-FMN)	7.5	5.0	5.6	3.8
MUSTANG II	7.3	6.0	5.9	4.0	ALAMO E	7.3	5.2	5.6	3.5
MB 29	8.3	5.1	5.8	3.8	REBEL 2000 (AA-989)	8.0	4.0	6.0	3.7
GENESIS	8.1	5.1	5.4	4.4	AZTEC II (TMI-AZ)	7.4	5.0	5.3	3.9
J-101	8.2	5.3	5.7	3.7	CORSTOCK (SSDE31)	7.2	5.2	5.4	4.1
BAR FA60 USA	8.3	5.3	5.5	3.9	MB 210	7.7	4.9	5.5	4.1
SHENANDOAH	7.1	6.0	5.5	4.4	WRS2	7.8	4.8	5.2	3.7
MB 212	8.2	5.1	5.4	4.2	ISI-TF9	7.4	5.1	5.1	4.0
MB 214	8.4	4.9	5.5	4.0	ZPS-2PTF	8.2	4.7	5.2	3.7
PIXIE E+	7.5	5.0	6.2	4.0	CORONADO GOLD (PST-5RT)	7.9	5.1	5.1	3.5
ARID 3 (J-98)	8.1	4.9	5.7	4.0	PICK FA B-93	8.1	4.6	5.5	3.6
MB 26	8.3	4.7	5.8	3.7	SRX 8084	7.4	5.1	5.3	3.8
REBEL SENTRY (AA-A91)	8.0	5.2	5.2	3.7	SRX 8500	7.9	4.5	5.1	4.1
SOUTHERN CHOICE	7.6	5.2	5.3	4.3	DLF-1	6.3	5.3	6.1	3.9
SAFARI	7.1	6.0	5.2	4.1	ARID 2 (J-3)	7.8	4.5	5.5	3.4
MB 216	8.2	4.7	5.8	3.7	OFI-96-32	7.4	4.9	5.3	3.4
RENEGADE	7.4	5.2	5.3	4.5	ARABIA (J-5)	7.8	4.4	5.6	3.7
TITAN 2	6.9	5.8	5.5	4.1	MARSHMAN	7.4	4.4	5.7	4.1
CU9901T	7.3	5.0	6.2	3.7	ATF-196	7.4	4.7	5.5	3.8
PICK RT-95	8.3	5.0	5.1	3.9	ISI-TF11	7.5	4.8	5.1	3.4
BONSAI 2000 (BULLET)	7.3	5.3	5.5	4.2	WPEZE (WPB-1C)	7.4	4.7	5.1	3.9
PST-5M5	7.9	5.3	5.1	3.8	SHORTSTOP II	7.3	4.6	5.7	3.8
TAR HEEL	7.8	4.9	5.5	4.0	CORONADO	8.0	4.3	5.3	3.7
MILLENNIUM (TMI-RBR)	8.0	4.6	5.7	3.9	BRAVO (RG-93)	7.6	4.6	5.2	4.0
COYOTE	8.5	4.6	5.1	4.0	WPB-1D	7.3	5.0	5.1	3.4
REGIMENT	7.1	5.4	5.6	4.0	CROSSFIRE II	7.6	4.5	5.2	4.1
EC-101	7.5	5.4	5.3	3.9	ATF-257	7.1	5.0	5.4	3.8
OFI-96-31	7.8	5.0	5.3	4.1	GAZELLE	8.2	4.3	5.2	3.6
MB 213	7.9	5.3	5.4	3.4	BAR FA 6D	8.0	4.0	5.5	3.9
RESERVE (ATF-182)	7.4	5.1	5.5	4.0	BAR FA6 US3	8.0	4.2	5.3	3.8
MASTERPIECE (LTP-SD-TF)	8.2	4.7	5.3	3.8	EMPRESS	7.6	4.8	5.1	3.7
MB 215	7.9	4.7	5.6	3.9	BAR FA6 US1	8.5	4.0	5.2	3.6
ATF-038	7.5	5.0	5.5	4.0	WOLFPACK (PST-R5TK)	7.3	4.8	5.3	4.0
MB 211	8.0	4.9	5.4	3.8	EA 41	7.5	4.8	5.2	3.8
PC-AO	7.8	5.1	5.5	3.7	JTF-96	6.0	5.5	5.2	4.5
TA-7	8.1	4.8	5.3	3.8	COCHISE II	7.1	5.4	5.1	3.7
MB 28	7.8	5.2	5.3	3.7	ATF-188	7.0	4.9	5.5	3.8
TULSA	7.5	5.1	5.5	3.8	BAR FA 6LV	8.1	4.1	5.3	3.7
APACHE II	8.0	4.8	5.3	3.8	KITTY HAWK S.S.T. (SS45DW)	7.0	5.2	5.4	3.6
PST-523	7.4	5.4	5.2	4.0	JAGUAR 3	8.0	4.2	5.1	3.8
PICK FA 6-94	7.9	5.1	5.7	3.3	AA-983	8.0	4.0	5.5	3.8
FALCON II	7.2	5.0	5.3	4.4	CU9502T	7.4	4.3	5.5	4.0
GOOD-EN (KOOS 94-14)	7.2	5.0	5.7	4.0	LEPRECHAUN	7.1	4.4	5.6	4.1

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TABLE 27.

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS  
1997 DATA

		LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/																	
NAME		IL1	IL2	IN1	KS2	KY1	M11	M01	M03	MS1	NE1	NE2	NJ1	NJ2	OH1	OK1	SC2	VA1	MEAN
BAR FA 6D		5.0	6.7	6.7	5.7	7.0	6.0	6.8	8.0	6.0	6.0	6.3	5.5	4.7	6.7	6.7	3.0	8.0	4.7
BAR FA 6LV		7.7	7.7	5.0	7.3	6.0	7.0	6.0	7.2	8.3	6.0	5.3	5.7	4.7	7.7	2.3	7.7	7.0	6.2
GAZELLE		7.3	7.7	5.3	8.3	5.7	6.0	7.3	6.0	7.2	8.7	6.0	5.7	4.3	4.0	7.0	2.7	7.3	6.2
PICK RT-95		7.7	7.3	5.0	7.7	6.7	6.0	7.3	6.0	8.0	6.3	5.3	6.0	4.3	4.0	7.0	5.0	7.0	6.2
MB 26		8.3	7.3	5.7	7.0	6.0	6.3	5.3	6.0	7.0	8.0	6.3	5.3	4.7	5.0	6.3	2.3	7.7	6.7
EMPRESS		8.0	7.3	6.0	8.0	6.3	5.3	6.7	6.0	6.8	8.3	6.0	5.7	4.0	5.0	5.0	6.7	3.0	6.7
MASTERPIECE (LTP-SD-TF)		8.0	7.7	5.3	7.3	6.3	5.7	6.5	7.7	6.3	5.0	5.7	5.5	4.7	5.0	6.3	2.7	7.3	7.0
BAR FA6 USA1		7.7	7.3	5.3	7.3	7.0	6.0	6.7	6.0	7.3	8.0	6.0	5.0	5.3	5.0	5.7	7.3	5.3	6.7
BAR FA6 USA		7.0	7.3	5.7	6.7	6.0	6.3	6.0	6.5	8.3	6.0	5.3	5.7	4.3	5.3	4.7	7.0	6.3	6.1
REMBRANDT (LTP-4026 E+)		7.3	7.3	4.7	7.7	6.7	6.3	6.3	6.7	7.2	8.3	6.0	5.0	4.7	5.0	5.0	5.3	2.3	8.0
AZTEC II (TMI-A2)		7.3	7.3	5.7	6.0	5.7	6.0	6.0	6.7	8.0	6.0	5.3	5.7	5.5	5.7	6.0	5.7	2.7	7.7
PICK FA XK-95		8.0	7.3	6.0	5.7	6.7	5.0	6.0	5.7	6.3	7.7	6.0	5.3	6.7	4.8	5.0	5.3	6.3	2.3
BAR FA6 USA3		7.0	7.3	5.3	6.7	6.3	5.7	6.0	6.3	6.0	6.8	8.7	6.0	5.7	5.0	5.2	4.7	6.3	2.3
PLANTATION (PENNINGTON-1901)		8.0	7.0	5.3	8.0	5.7	6.0	5.7	6.0	7.0	7.3	6.0	5.3	5.0	5.2	4.7	6.3	2.3	7.7
BONSAI 2000 (BULLET)		6.3	7.7	5.0	6.3	6.0	6.0	7.0	6.0	6.3	7.7	6.0	5.3	5.7	4.7	6.0	5.3	2.0	7.7
CU9502T		6.3	7.7	5.3	7.7	7.0	6.0	6.0	6.5	7.0	6.0	4.7	5.7	4.7	5.0	5.7	2.3	8.0	4.7
MB 212		6.7	7.7	5.0	7.0	6.3	6.0	6.0	6.5	8.0	6.0	5.0	5.7	5.7	5.3	6.0	5.7	2.3	7.7
MILLENNIUM (TMI-RBR)		7.7	7.7	5.3	6.7	6.3	6.0	6.0	6.8	7.7	5.7	5.0	5.7	5.7	5.3	5.7	5.7	2.3	7.7
PICK FA B-93		7.0	7.0	5.3	7.0	5.3	5.7	6.0	6.3	6.0	6.5	7.3	6.3	5.0	5.2	5.0	5.3	6.7	2.7
WRS2		7.0	7.7	5.0	7.3	5.7	5.3	6.0	6.3	6.0	6.3	7.7	6.0	5.3	5.7	5.3	6.3	2.7	8.0
ATF-196		6.7	7.3	6.3	7.3	7.0	5.0	5.0	6.3	6.3	6.0	6.3	5.0	5.0	5.0	5.0	5.7	2.3	7.3
PICK FA 15-92		7.3	7.3	5.3	7.7	6.7	5.7	7.0	5.7	6.5	7.7	6.0	5.0	5.0	5.0	5.0	5.3	2.0	7.3
ZPS-2PTF		7.3	7.7	5.3	6.7	6.0	5.7	6.0	5.7	6.5	7.7	6.0	5.0	4.0	5.5	4.3	6.7	2.7	7.0
COTONE		6.7	7.3	5.0	7.0	6.7	5.7	6.0	6.7	6.0	5.0	5.7	5.2	4.7	7.3	5.7	2.7	7.3	4.7
ZPS-5LZ		8.7	7.0	5.0	7.0	6.3	5.7	6.7	6.5	6.5	8.7	6.0	5.0	5.7	5.0	4.7	6.0	5.7	6.0
SHORTSTOP 11		7.0	7.7	5.3	6.3	6.7	6.0	6.7	5.7	6.8	7.7	6.0	4.7	5.7	5.0	5.0	5.3	2.3	7.7
SRX 8500		7.0	7.3	4.3	7.0	5.0	6.7	6.0	6.3	6.0	6.3	7.3	6.3	5.0	4.0	5.0	5.7	2.7	7.3
TULSA		6.0	7.0	4.7	6.3	6.0	5.7	6.3	5.7	6.5	6.7	6.7	5.0	5.2	5.0	5.0	5.3	2.7	7.0
BAR FA6 US2U		7.3	7.3	5.7	7.3	5.3	5.0	6.0	6.7	6.7	7.7	6.0	5.0	5.0	5.0	5.0	5.7	2.7	7.3
OF1-951		6.7	7.7	5.0	6.3	6.7	6.0	5.3	6.7	6.0	6.0	5.3	5.7	5.0	5.0	5.0	5.7	3.0	7.0
SR 8210		8.0	6.7	6.0	6.0	5.3	6.0	5.0	5.7	6.2	8.0	6.0	5.0	5.5	6.0	5.0	5.3	2.7	7.0
PST-523		6.7	7.7	5.7	7.0	6.0	5.3	5.0	6.0	6.0	7.0	6.0	5.0	5.7	5.0	5.0	5.7	2.7	7.0
ANTHEM 11 (TMI-FMN)		6.7	7.3	5.3	6.0	5.7	5.3	5.7	6.3	6.7	6.7	6.0	5.0	5.7	5.0	5.0	5.7	2.7	7.0
REGIMENT		6.7	7.3	4.3	6.7	5.3	5.5	6.0	6.7	6.7	6.3	6.0	5.0	5.8	5.3	6.3	4.7	6.7	5.9
SUNPRO		8.0	6.7	6.0	6.0	5.7	6.0	6.7	6.7	6.3	7.7	6.0	5.0	4.7	4.8	6.0	6.3	5.7	5.9
REBEL SENTRY (AA-A91)		5.7	7.7	5.7	6.7	6.3	6.0	5.3	6.0	6.5	7.7	6.3	5.0	4.7	4.3	4.3	6.3	3.0	7.0
PICK FA UT-93		6.7	6.7	5.3	6.0	7.3	5.0	5.7	6.8	7.0	6.0	6.3	4.3	5.5	4.7	5.3	6.3	2.0	7.3
BAR FA6 US6F		7.0	7.0	5.3	7.3	5.7	5.3	6.0	5.7	6.7	7.7	5.7	5.3	5.2	5.7	6.0	6.7	3.0	7.3
PICK FA 20-92		6.3	7.3	6.0	7.0	4.7	5.3	6.0	4.7	5.3	7.0	7.3	6.3	5.7	5.3	5.5	6.7	2.3	7.0
MUSTANG II		6.7	7.7	5.0	7.3	5.7	5.7	6.0	7.3	5.7	6.5	7.0	6.0	5.7	5.0	5.7	6.7	2.0	7.0
OF1-96-31		6.0	7.3	4.7	6.7	6.0	6.0	4.7	6.0	6.2	8.0	6.0	5.3	5.7	5.0	5.7	4.7	2.3	8.0
APACHE 11		6.7	7.7	5.7	7.3	6.0	5.3	4.0	5.7	6.5	6.5	6.0	5.7	5.7	5.3	5.7	6.3	2.3	7.0
COCHISE 11		7.3	7.0	5.0	6.3	6.0	5.7	6.3	5.7	6.3	7.2	5.7	5.0	5.7	5.0	5.7	5.7	2.3	7.3
PICK GA-96		7.7	7.3	4.0	7.0	6.3	6.0	6.7	6.0	6.5	8.0	6.0	4.7	5.3	6.0	6.7	5.7	2.3	7.7
OF1-FMN		8.0	7.3	5.0	6.0	6.3	5.0	5.3	6.0	6.3	7.0	6.0	4.0	5.0	5.0	5.0	6.3	2.7	7.3

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TABLE 27. (CONT'D)

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS  
1997 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE																			
NAME	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19
MB 210	5.7	7.3	6.0	6.3	6.7	7.0	5.7	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
BRAVIO (RG-93)	6.7	7.0	5.7	7.0	5.3	5.3	4.0	5.7	6.3	7.3	6.3	5.0	6.3	5.5	6.7	5.7	6.7	5.7	5.8
OFL-931	7.3	7.3	4.7	6.7	5.7	5.7	6.3	6.0	6.3	7.7	6.0	5.3	5.3	5.8	6.0	5.0	5.0	6.7	5.8
JTFIA-96	6.3	7.7	4.7	6.0	5.7	5.0	4.7	5.7	4.7	8.7	6.0	3.7	8.0	5.0	6.3	6.7	7.0	5.3	5.8
R5AU	6.0	7.0	5.3	7.0	6.3	4.7	6.0	6.0	6.0	6.7	6.0	5.3	6.3	6.7	4.7	8.0	5.0	7.0	5.8
CROSSFIRE 11	7.3	7.7	5.7	8.0	5.0	5.7	6.0	6.0	5.7	5.8	7.7	6.3	5.0	5.0	5.0	2.0	7.3	4.7	6.3
JAGUAR 3	6.0	7.0	5.7	7.3	6.0	5.0	6.3	6.0	5.7	6.0	7.7	6.0	4.7	6.0	5.0	2.3	7.3	5.0	6.7
FALCON 11	6.0	7.0	4.7	7.3	6.7	4.7	6.0	6.0	6.3	7.3	6.0	5.0	6.0	6.0	6.0	2.3	7.3	5.0	6.7
DP 50-9011	6.7	7.0	5.7	5.3	5.7	5.7	5.3	6.3	6.0	6.0	6.7	6.0	4.7	5.7	5.0	2.0	7.7	5.0	7.0
RESERVE (ATF-182)	6.7	6.7	5.3	6.7	5.7	5.3	6.3	5.7	6.3	7.0	6.0	4.0	6.0	5.0	6.7	2.3	7.7	4.7	7.3
SOUTHERN CHOICE	7.3	7.3	4.7	7.0	6.0	5.3	5.0	6.0	6.5	7.3	5.7	5.0	6.0	5.3	5.7	5.3	4.7	6.7	5.8
ARID 3 (J-9B)	7.3	6.7	5.7	6.7	6.7	5.9	6.7	5.7	7.0	7.0	6.0	4.3	4.3	5.5	4.7	5.0	5.0	7.0	5.8
AFF-188	5.7	7.0	5.0	7.3	6.3	6.3	5.3	6.0	5.8	7.3	6.0	5.0	4.7	5.0	6.0	2.3	8.0	5.0	6.7
CORONADO	7.3	6.7	6.0	7.3	6.7	6.0	3.7	5.3	6.3	7.3	6.0	4.7	5.2	5.0	6.7	2.7	7.3	4.7	6.7
MB 213	6.0	7.0	6.0	6.0	6.0	5.3	4.7	5.3	6.5	7.7	6.0	5.7	4.7	5.0	5.0	2.3	7.7	5.0	7.0
EA 41	6.7	7.3	5.7	5.3	5.7	5.3	5.3	5.3	6.3	7.7	6.0	5.3	5.3	5.7	5.0	2.0	7.0	5.0	5.7
PST-5E5	5.7	7.0	4.7	7.7	6.0	5.3	4.0	6.0	6.0	7.0	6.0	5.0	5.2	5.7	5.7	2.7	7.3	5.0	6.3
OFL-96-32	6.3	6.7	6.0	6.7	6.0	5.7	4.7	5.7	6.3	7.3	5.7	5.0	5.7	4.7	5.7	1.7	7.0	5.0	6.3
NB 211	6.0	7.0	5.0	6.7	6.0	5.7	4.7	4.7	5.7	6.7	6.0	4.7	5.0	5.0	4.7	2.3	7.0	4.7	7.0
J-101	6.3	7.3	5.0	7.0	5.7	5.7	6.3	5.3	6.3	7.0	6.0	5.0	6.7	5.8	5.7	2.0	7.0	5.3	6.7
PST-5T0	6.0	7.7	5.7	7.0	6.0	5.0	4.0	6.0	6.0	6.3	6.3	4.7	6.0	5.2	5.7	2.7	7.0	4.7	7.0
NB 29	6.0	7.3	4.7	6.3	6.0	6.3	5.0	6.0	6.3	7.2	6.0	4.7	5.2	6.0	6.3	1.7	7.0	5.0	6.3
TA-7	6.0	7.0	5.3	6.3	6.3	5.9	4.7	6.0	6.2	7.2	6.3	4.7	6.7	5.0	5.3	2.0	7.0	5.3	6.7
TAR HEEL	7.0	7.0	5.0	7.3	6.3	5.3	4.3	6.0	5.7	7.0	6.0	5.0	6.0	5.7	6.3	3.0	7.0	4.7	6.0
ARABIA (J-5)	6.0	7.3	5.0	6.0	6.3	5.0	6.7	5.0	6.3	7.2	6.0	4.7	5.0	5.5	4.7	2.0	7.0	5.0	6.7
ATF-257	6.7	7.0	5.7	7.0	6.0	5.3	4.7	5.3	5.3	6.3	6.0	4.3	6.3	5.0	5.3	2.0	7.3	4.7	6.3
DUSTER	6.3	6.7	4.7	6.3	5.3	5.7	6.3	6.0	6.3	7.7	6.0	4.7	6.3	5.0	5.3	2.3	7.0	4.7	6.7
MB 214	6.0	7.3	6.0	6.3	6.0	6.3	5.0	5.7	5.7	6.5	7.3	6.0	5.0	5.3	6.0	4.7	2.3	7.0	5.7
LEPRECHAUN	5.3	6.7	5.7	7.3	6.0	4.3	4.3	5.3	5.3	6.0	5.7	4.7	5.0	5.8	5.7	2.3	7.0	5.3	7.0
PRO 8430	6.3	7.0	5.3	6.7	6.0	5.3	4.7	5.3	5.8	7.3	6.0	4.7	6.3	5.5	5.7	2.7	7.0	5.3	7.0
CORONADO GOLD (PST-5RT)	6.0	6.7	5.3	7.0	6.0	5.7	5.0	4.7	5.7	6.0	7.3	5.0	5.3	5.7	6.7	2.3	7.3	5.0	6.3
PICK FA N-93	6.3	6.7	6.0	6.0	6.7	5.7	5.0	6.0	7.2	7.7	6.0	5.3	5.3	5.7	4.7	4.3	5.0	6.7	5.7
TITAN 2	4.7	7.0	4.3	6.3	5.3	5.0	4.7	5.7	5.3	7.0	6.0	5.3	7.7	5.5	6.3	4.3	5.3	2.0	7.3
ISI-TF9	5.0	7.0	5.0	6.7	5.0	5.0	5.3	5.7	5.0	5.7	6.0	4.7	5.7	5.5	6.3	4.3	5.3	2.0	7.3
BANDANA (PST-R5AE)	5.7	7.3	4.3	6.7	6.3	4.7	4.3	5.0	4.7	5.0	5.7	5.0	5.7	5.7	6.0	4.3	5.0	6.7	5.7
WOLFPACK (PST-R5TK)	5.7	7.3	5.0	6.7	5.3	6.0	5.3	6.0	6.0	6.0	6.0	4.7	5.7	5.5	6.0	4.3	5.0	6.7	5.6
AA-983	6.0	6.7	6.0	7.3	6.7	5.3	5.0	5.7	6.0	6.7	6.0	5.0	5.7	5.2	5.0	4.3	5.0	6.7	5.6
SRX 8084	6.7	6.7	5.0	7.0	6.3	5.7	5.7	6.7	6.2	7.0	6.0	4.7	5.3	5.5	5.7	4.7	5.0	6.7	5.6
PC-AO	6.7	7.0	4.3	6.3	6.3	4.7	5.0	6.0	5.7	6.3	6.0	5.0	5.7	5.0	5.7	4.3	5.0	2.3	7.0
WX3-275	5.7	7.0	5.7	5.0	6.7	6.0	5.3	5.7	6.0	6.3	5.7	5.0	5.7	5.5	5.7	4.7	5.0	6.3	5.6
PICK FA 6-91	5.3	7.0	5.0	6.7	6.0	5.0	4.7	5.3	5.3	7.2	7.0	4.0	5.7	5.0	5.7	4.3	5.0	7.0	5.6
KITTY HAWK S.S.T. (SS55DW)	5.3	6.7	4.3	7.0	6.3	5.0	4.7	5.3	5.7	6.7	6.0	5.0	5.7	5.5	6.3	4.7	5.0	4.7	6.7
ATF-022	6.3	7.3	5.7	6.7	5.0	5.7	5.7	6.7	5.0	4.7	7.3	5.3	5.8	7.0	6.0	4.3	5.0	6.3	5.7
WXX-275	7.0	7.7	5.0	6.0	5.7	5.3	6.0	5.3	6.0	6.7	6.0	5.0	5.7	5.0	5.7	4.7	5.0	4.7	6.7
PICK FA D-91	5.3	7.0	5.0	6.7	6.0	5.0	4.7	5.3	5.3	7.2	7.0	4.0	5.7	5.0	5.7	4.3	5.0	7.0	5.6
PIXIE E+	6.3	7.0	5.0	6.7	7.0	5.3	5.0	5.3	5.3	6.0	6.0	5.0	5.7	5.5	5.5	4.3	5.0	4.7	6.7
ISI-TF10	6.0	6.3	5.7	6.0	5.3	5.0	4.7	5.3	5.0	5.7	6.0	4.3	6.0	5.7	6.0	4.3	5.0	4.7	6.7

Table 16 9900217

Table 16

9900217

TABLE 27. (CONT'D)

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS  
1997 DATA

NAME	LEAF TEXTURE RATINGS 1-9; 9=VERY FINE																					
	AR1	CA1	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	OH1	OK1	SC2	VA1
NB 28	5.7	6.0	5.7	6.0	5.3	4.3	5.7	6.3	7.0	6.0	4.3	6.7	4.8	5.7	5.3	2.0	7.0	5.3	6.0	5.6	5.6	
REBEL 2000 (AA-9889)	6.7	7.3	5.0	6.7	5.3	5.0	4.7	5.3	6.2	6.0	4.7	5.7	5.8	5.0	5.3	5.7	2.7	7.0	4.7	6.7	5.6	
SAFARI	6.0	7.0	4.3	6.7	5.7	5.0	5.7	5.3	5.5	6.0	4.7	5.3	5.5	6.0	4.7	5.3	2.7	7.3	5.0	6.7	5.6	
BONSAI	5.7	7.3	5.3	6.0	5.3	6.3	5.3	5.8	7.7	6.3	4.7	7.0	5.2	5.3	5.7	4.7	4.3	2.0	7.0	5.0	6.3	
ATF-192	5.7	7.3	4.7	6.3	5.3	5.0	5.0	5.0	6.0	6.3	5.7	6.3	5.0	5.5	5.7	4.7	4.3	2.0	7.0	5.0	6.3	
GENESIS	6.3	6.7	4.7	6.3	6.0	5.0	4.0	5.7	6.2	7.3	6.0	5.0	7.0	5.5	5.7	4.3	5.7	1.7	7.0	4.7	6.7	
TWILIGHT 11 (TMI-TW)	5.3	7.3	5.0	5.7	5.0	4.3	5.7	5.0	6.3	6.7	6.0	4.3	6.7	5.7	5.2	4.7	5.0	4.7	2.3	7.3	5.0	6.3
EC-101	5.3	6.7	5.7	6.7	6.0	5.0	3.7	5.3	6.0	7.3	6.0	5.0	6.3	5.3	6.7	4.7	4.7	2.0	7.0	4.7	6.7	
MARKSMAN	7.3	7.0	4.3	6.0	5.3	5.0	4.3	5.3	6.2	7.0	6.0	4.0	6.3	5.7	5.7	4.3	4.7	2.3	7.0	5.0	6.7	
GOOD-EN (KODS 94-14)	5.3	6.3	6.5	5.7	5.7	5.3	4.0	5.0	5.7	7.3	6.0	4.7	7.0	5.3	6.0	5.7	4.7	5.7	2.0	7.0	5.0	5.5
PST-5M5	6.0	7.0	5.0	7.0	5.7	5.0	4.7	5.7	5.8	7.0	6.0	3.7	6.3	5.3	4.7	5.3	5.0	5.7	2.0	7.0	5.0	5.5
SHENANDOAH	7.0	7.0	5.0	5.3	5.0	4.3	5.7	5.0	5.5	7.0	6.3	5.0	5.7	4.8	5.7	3.7	4.7	2.0	7.3	5.0	6.3	
WEZE (WPB-1C)	5.3	7.7	5.3	6.0	5.7	5.0	3.7	4.7	5.7	7.0	6.0	4.3	7.0	5.5	6.3	5.3	5.0	5.0	4.0	7.0	5.0	6.7
WPB-1B	6.0	6.3	5.0	5.0	6.0	5.0	4.7	5.7	7.0	6.0	5.0	6.3	5.0	5.3	6.0	5.0	5.0	2.0	7.0	5.0	6.7	
CORSTOCK (SSDE31)	5.7	7.0	5.5	6.3	6.0	4.7	4.3	5.0	5.2	7.0	6.3	5.0	6.7	5.2	5.7	6.0	5.0	5.0	2.3	7.0	4.7	7.0
RENEGADE	6.0	7.0	4.7	6.3	6.0	4.3	4.7	5.7	5.7	6.7	6.0	4.0	6.3	5.5	5.0	6.3	3.7	4.3	2.0	7.0	5.0	6.7
TOMAHAWK-E	6.0	6.7	5.0	5.3	6.7	5.7	5.7	6.0	6.0	7.7	6.0	4.7	5.3	4.8	5.0	5.0	4.0	2.0	7.0	5.0	6.7	
ARID 2 (J-3)	5.7	6.7	5.3	6.0	5.7	4.3	5.3	5.3	6.3	6.0	5.3	6.3	5.0	5.7	5.7	5.3	5.7	4.0	5.0	4.0	6.3	
ALAMO E	6.3	7.0	5.3	5.7	5.0	4.7	5.7	6.3	5.7	6.3	5.7	4.7	5.7	5.0	5.3	5.0	5.0	2.7	7.0	4.7	6.7	
EQUINOX (TMI-N91)	5.7	7.0	4.0	6.0	5.3	5.3	5.0	6.0	6.7	6.0	4.0	5.3	4.8	6.0	6.3	5.7	5.0	5.3	2.3	7.3	4.7	6.3
FINELAWN PETITE	5.7	7.3	4.7	6.0	5.3	4.3	5.3	5.0	5.7	6.0	6.3	5.0	6.7	5.3	5.0	5.0	4.7	5.0	2.7	7.0	4.7	6.0
CU9501T	6.7	7.0	4.7	7.0	5.3	5.0	5.3	6.0	6.0	7.0	6.0	4.7	5.0	5.2	4.7	5.0	4.7	5.0	2.0	7.0	5.0	6.7
ISI-1F11	5.0	7.0	5.0	6.3	5.3	5.0	3.7	5.0	5.7	6.7	6.3	4.3	6.3	5.2	6.7	6.0	4.7	4.7	2.0	7.0	4.7	6.3
ATF-020	5.3	7.3	5.0	6.0	6.3	5.0	6.0	5.3	6.2	7.0	5.7	4.3	6.3	5.5	4.7	6.0	4.7	4.7	2.0	7.0	5.0	6.7
WPB-10	5.7	6.7	4.7	6.7	5.7	4.3	3.7	5.3	5.2	7.0	6.0	4.7	6.3	5.0	5.7	5.0	5.7	5.0	3.0	7.0	5.0	6.3
MB 215	5.0	6.7	4.7	6.0	5.3	5.0	5.3	5.0	5.7	6.3	6.0	5.0	6.7	5.3	5.3	5.0	5.0	2.0	7.0	5.0	6.3	
ARID	5.0	7.7	5.5	5.3	5.3	4.3	4.3	5.0	4.3	5.7	6.0	5.0	4.7	5.3	5.3	5.0	5.0	2.0	7.0	4.7	7.0	
MB 216	5.7	6.7	5.0	7.0	5.7	5.3	3.7	5.0	5.8	7.0	6.0	4.0	6.3	5.0	5.3	5.7	5.0	2.0	7.0	4.7	6.7	
PSII-TF-10	5.3	6.0	5.3	5.7	5.7	5.7	3.3	4.7	5.7	7.0	6.3	4.0	6.0	5.3	6.0	5.0	5.7	3.7	4.3	2.7	7.0	
LION	4.7	7.3	5.5	6.0	5.0	4.0	4.3	5.5	6.3	6.0	4.3	6.3	5.5	5.7	7.0	4.7	5.0	2.0	7.0	5.0	6.3	
ATF-253	6.0	6.7	5.7	6.0	5.3	4.7	5.3	5.3	5.5	6.0	6.0	4.0	5.3	5.0	6.0	5.7	4.7	4.3	2.0	7.0	5.0	6.3
DLF-1	5.0	6.3	6.0	5.7	5.7	5.7	3.7	4.7	5.3	6.0	4.7	6.7	5.7	6.0	5.7	4.3	5.0	2.0	6.7	4.7	6.3	
PSII-TF-9	5.7	6.5	6.0	5.3	5.0	3.7	3.7	5.3	7.0	5.7	4.3	6.7	5.7	6.0	6.7	3.0	4.0	2.3	7.0	4.7	7.3	
JSC-1	4.3	7.3	5.7	6.3	5.3	4.3	3.0	5.0	5.5	7.0	6.0	4.0	6.3	5.5	6.0	5.7	3.0	4.3	2.7	7.0	5.0	6.7
JTF-FC-96	5.3	7.0	4.0	5.3	5.7	4.0	3.7	4.7	5.2	7.3	6.0	3.7	6.7	5.0	6.0	3.0	3.7	2.0	7.0	5.0	6.7	
AV-1	4.0	7.0	5.0	5.7	5.3	4.3	3.7	4.7	5.0	6.0	4.3	7.3	5.2	6.3	6.0	2.0	4.7	2.3	7.0	5.0	6.7	
DP 7952	5.0	6.7	5.0	4.7	5.7	3.7	3.7	5.0	4.8	5.0	6.0	4.0	8.3	5.3	6.7	6.7	2.3	3.0	2.3	7.0	4.7	6.7
KENTUCKY-31 W/ENDO.	3.0	4.3	4.0	3.7	4.7	3.0	1.3	3.3	3.7	4.0	6.0	2.3	8.7	5.0	9.0	1.0	1.7	6.0	4.3	5.3	4.3	
LSD VALUE	1.3	0.9	1.2	1.1	1.2	1.1	1.9	0.9	1.8	0.9	0.7	0.9	1.7	1.0	1.3	1.2	2.1	1.4	0.7	0.6	0.3	
C.V. (%)	13.0	8.1	14.2	10.4	12.0	12.4	22.4	9.7	25.7	8.0	7.6	11.7	17.5	15.5	14.8	24.9	16.8	19.8	5.3	8.6	7.7	

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

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DROUGHT TOLERANCE (WILTING) RATINGS OF TALL FESCUE CULTIVARS 1/  
1997 DATA

## DROUGHT TOLERANCE (WILTING) RATINGS 1-9; 9=NO WILTING 2/

NAME	DE1	NAME	DE1	NAME	DE1
BAR FA 6LV	8.3	EA 41	7.7	ATF-020	7.3
CU9502T	8.3	EC-101	7.7	ATF-038	7.3
EQUINOX (TMI-N91)	8.3	FINE LAWN PETITE	7.7	ATF-253	7.3
ISI-TF9	8.3	GAZELLE	7.7	BAR FA6 US2U	7.3
PS11-TF-10	8.3	GENESIS	7.7	BAR FA6 US6F	7.3
AA-983	8.0	J-101	7.7	BAR FA6 USA	7.3
AV-1	8.0	JAGUAR 3	7.7	COCHISE II	7.3
BAR FA 6D	8.0	JTTFA-96	7.7	CORONADO	7.3
BAR FA6 US1	8.0	KENTUCKY-31 W/ENDO.	7.7	CROSSFIRE II	7.3
DP 50-9011	8.0	MB 26	7.7	DUSTER	7.3
FALCON II	8.0	MB 28	7.7	EMPRESS	7.3
ISI-TF10	8.0	MB 29	7.7	ISI-TF11	7.3
LION	8.0	MUSTANG 11	7.7	JSC-1	7.3
OFI-931	8.0	OFI-96-31	7.7	KITTY HAWK S.S.T. (SS45DW)	7.3
OFI-951	8.0	OFI-FWY	7.7	LEPRECHAUN	7.3
PICK GA-96	8.0	PICK FA 15-92	7.7	MARKSMAN	7.3
PICK RT-95	8.0	PICK FA B-93	7.7	MASTERPIECE (LTP-SD-TF)	7.3
PRO 8430	8.0	PICK FA N-93	7.7	MB 211	7.3
PS11-TF-9	8.0	PICK FA UT-93	7.7	MB 212	7.3
REBEL 2000 (AA-989)	8.0	PLANTATION (PENNINGTON-1901)	7.7	MB 213	7.3
REGIMENT	8.0	PST-5TO	7.7	MB 214	7.3
SRX 8084	8.0	REMBRANDT (LTP-4026 E+)	7.7	MB 215	7.3
SRX 8500	8.0	RENEGADE	7.7	MB 216	7.3
TULSA	8.0	RESERVE (ATF-182)	7.7	MILLENIUM (TMI-RBR)	7.3
TWILIGHT II (TMI-TW)	8.0	SAFARI	7.7	PC-A0	7.3
WRS2	8.0	SHORTSTOP 11	7.7	PICK FA 20-92	7.3
ZPS-5LZ	8.0	SR 8210	7.7	PICK FA XK-95	7.3
APACHE 11	7.7	TA-7	7.7	PST-523	7.3
ARABIA (J-5)	7.7	TAR HEEL	7.7	PST-555	7.3
ARID 2 (J-3)	7.7	TITAN 2	7.7	PST-5M5	7.3
ATF-022	7.7	TOMAHAWK-E	7.7	REBEL SENTRY (AA-A91)	7.3
ATF-188	7.7	WOLFACK (PST-R5TK)	7.7	SOUTHERN CHOICE	7.3
ATF-192	7.7	WVPB-1D	7.7	SUNPRO	7.3
ATF-196	7.7	WX3-275	7.7	WVPB-1B	7.3
ATF-257	7.7	ARID	7.5	WPEZE (WVPB-1C)	7.3
AZTEC 11 (TMI-AZ)	7.7	COYOTE	7.5	ZPS-2PTF	7.3
BANDANA (PST-R5AE)	7.7	JTTFA-96	7.5	COMSTOCK (SSDE31)	7.0
BAR FA6 US3	7.7	GOODEN (KOOS 94-14)	7.5	RSAU	7.0
BONSAI	7.7	MB 210	7.5	SHENANDOAH	7.0
BONSAI 2000 (BULLET)	7.7	OFI-96-32	7.5		
BRAVO (RG-93)	7.7	PICK FA 6-91	7.5		
CORONADO GOLD (PST-5RT)	7.7	PIXIE E+	7.5	LSD VALUE	1.1
CU9501T	7.7	ALAMO E	7.3	C.V. (%)	9.0
DLF-1	7.7	ANTHEM II (TMI-FMN)	7.3		
DP 7952	7.7	ARID 3 (J-98)	7.3		

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

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TABLE 37.

LEAF SPOT RATINGS OF TALL FESCUE CULTIVARS  
1997 DATA

NAME	ME1	NAME	ME1	NAME	ME1	NAME	ME1
LEAF SPOT RATINGS 1-9; 9=NO DISEASE 2/							
COYOTE	8.7	PICK FA 6-91	6.0	LION	4.7	MARSHMAN	4.7
MILLENNIUM (TMI-RBR)	8.7	PLANTATION (PENNINGTON-1901)	6.0	PICK FA UT-93	4.7	PST-SMS	4.7
CUP902T	7.7	PST-5MS	6.0	PST-STG	4.7	RENEGADE	4.7
GAZELLE	7.7	ZPS-2PTF	6.0	TAR HEEL	4.7	ZPS-5MS	4.7
PICK FA N-93	7.7	APACHE II	5.7	TITAN 2	4.7	ATF-020	4.7
PRO 8430	7.7	ATF-020	5.7	ATF-D22	4.3	BAR FA6 US2U	4.3
ZPS-5LZ	7.7	BAR FA6 US2U	5.7	ATF-D38	4.3	CORONADO GOLD (PST-5RT)	4.3
BAR FA6D USA	7.3	CORONADO GOLD (PST-5RT)	5.7	ATF-192	4.3	JAGUAR 3	4.3
MB 210	7.3	JAGUAR 3	5.7	ATF-196	4.3	PICK RT-95	4.3
MB 214	7.3	PICK RT-95	5.7	BRAVO (RG-93)	4.3	PIXIE E+	4.3
REBEL 2000 (AA-989)	7.3	PIXIE E+	5.7	OF1-96-32	4.3	RESERVE (ATF-182)	4.3
REMBRANDT (CLTP-4026 E+)	7.3	RESERVE (ATF-182)	5.7	PC-AO	4.3	SHORTSTOP II	4.3
WOLFPACK (PST-R5TK)	7.3	SHORTSTOP II	5.7	TOMAHAWK-E	4.3	SUNPRO	4.3
AA-983	7.0	SUNPRO	5.7	WX3-275	4.3	AZTEC II (TMI-AZ)	4.0
GENESIS	7.0	AZTEC II (TMI-AZ)	5.3	ANTHEM II (TMI-FMN)	4.0	BAR FA6 US1	4.0
MB 216	7.0	BAR FA6 US1	5.3	ATF-257	4.0	FALCON II	4.0
PST-5E5	7.0	FALCON II	5.3	ISI-TF10	4.0	FINELAWN PETITE	4.0
SRX 8084	7.0	FINELAWN PETITE	5.3	PST-523	4.0	ISI-TF19	4.0
TA-7	7.0	ISI-TF19	5.3	REGIMENT	4.0	J-101	4.0
ARABIA (J-5)	6.7	J-101	5.3	SRX 8500	4.0	JTTFA 96	4.0
BAINDANA (PST-R5AE)	6.7	JTTFA 96	5.3	TULSA	4.0	MB 211	4.0
BAR FA6 US3	6.7	MB 211	5.3	TWILIGHT II (TMI-TW)	4.0	MUSTANG II	4.0
CUP901T	6.7	MUSTANG II	5.3	DP 7952	3.7	OF1-931	3.7
MB 215	6.7	OF1-931	5.3	DUSTER	3.7	PICK FA 15-92	3.7
MB 216	6.7	PICK FA 15-92	5.3	EA 41	3.7	PICK FA 20-92	3.7
PICK GA-96	6.7	PICK FA 20-92	5.3	OF1-TWY	3.7	SAFARI FA	3.7
WRS2	6.7	SAFARI FA	5.3	PSI1-TF-10	3.7	SHENANDOAH	3.7
WPB-1B	6.7	SHENANDOAH	5.3	SOUTHERN CHOICE	3.7	SR 8210	3.3
ATF-188	6.3	SR 8210	5.3	ALAMO E	3.3	ARID 2 (J-3)	3.3
BAR FA 6D	6.3	ARID 2 (J-3)	5.0	ARID	3.3	ARID 3 (J-98)	3.3
CORONADO	6.3	ARID 3 (J-98)	5.0	AV-1	3.3	BAR FA6 US6F	3.3
CROSSFIRE II	6.3	BAR FA6 US6F	5.0	COMSTOCK (SSDE31)	3.3	COCHISE II	3.3
GOOD-EN (KOOS 94-14)	6.3	COCHISE II	5.0	JSC-1	3.3	DP 50-9011	3.3
MASTERPIECE (LTFP-SD-TF)	6.3	DP 50-9011	5.0	PICK FA XK-95	3.3	EC-101	3.0
MB 29	6.3	EC-101	5.0	KENTUCKY-31 W/ENDO.	3.0	EQUINOX (TMI-N91)	3.0
OF1-96-31	6.3	EQUINOX (TMI-N91)	5.0	WPEZE (WFB-1C)	3.0	JTFCC-96	2.7
PSI1-TF-9	6.3	JTFCC-96	5.0	DLF-1	2.7	KITTY HAWK S.S.T. (SS45DW)	2.7
BAR FA 6LV	6.0	KITTY HAWK S.S.T. (SS45DW)	5.0	PICK FA B-93	5.0	R5AU	5.0
BONSAI 2000 (BULLET)	6.0	PICK FA B-93	5.0	WVPB-1D	5.0	LSD VALUE	3.1
TSI-TF11	6.0	WVPB-1D	5.0	ATF-253	4.7	C.V. (%)	35.2
LEPRECHAUN	6.0	ATF-253	4.7	BONSAI	4.7	EMPRESS	4.7
MB 212	6.0	BONSAI	4.7				
MB 213	6.0						
MB 28	6.0						
OF1-951	6.0						

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
 STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

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TABLE 38.

BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS 1/  
1997 DATA

NAME	BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/					VA1	VA4
	AR1	GA1	IN1	MS1	NE1		
KENTUCKY-31 W/ENDO.	8.7	6.7	6.7	6.3	8.0	6.7	6.7
REMBRANDT (LTP-4026 E+)	9.0	4.0	7.3	6.3	8.0	7.3	3.3
ARID	8.7	5.7	6.7	6.0	7.7	6.3	6.4
JAGUAR 3	8.3	5.3	6.7	7.3	8.0	6.0	3.3
WOLFPACK (PST-R5TK)	8.7	5.3	7.3	7.0	8.0	6.0	6.3
PST-5E5	9.0	4.7	7.0	7.0	8.0	5.7	5.3
MB 211	8.7	5.3	7.0	6.0	8.0	5.7	3.0
RENEGADE	9.0	4.3	6.7	6.7	7.7	5.7	2.7
ATF-020	8.3	4.7	7.0	6.7	8.0	5.7	2.7
MUSTANG II	6.7	5.0	6.7	7.0	8.0	5.3	6.1
PST-523	6.7	5.3	6.3	8.0	8.0	5.7	3.0
CUP502T	8.7	5.3	6.0	6.3	8.0	5.3	6.1
ATF-022	8.0	4.7	5.0	8.0	8.0	5.7	3.3
MILLENNIUM (TMI-RBR)	8.0	5.0	6.7	5.0	8.0	5.7	2.7
PICK RT-95	9.0	4.3	7.7	6.0	8.0	7.0	5.0
ARID 3 (J-98)	8.7	4.3	6.3	6.3	8.0	5.7	4.7
BAR FA6 US2U	8.0	4.0	7.0	6.3	8.0	6.0	3.0
CROSSFIRE II	8.3	4.7	7.3	6.0	8.0	5.7	3.3
PLANTATION (PENNINGTON-1901)	9.0	5.0	6.3	6.0	8.0	5.7	6.0
ATF-038	8.3	4.0	7.0	5.3	8.0	5.7	3.0
MB 29	8.7	5.0	6.7	6.0	8.0	5.7	6.0
TAR HEEL	7.7	4.3	7.7	6.3	7.0	5.7	2.7
ATF-257	8.3	4.7	6.7	5.0	7.0	5.7	2.7
CU9501T	7.7	4.3	6.7	6.7	7.0	6.0	3.3
JTF-FA-96	7.3	4.3	6.3	5.7	8.0	6.0	3.0
RSAU	9.0	4.7	7.0	5.0	8.0	6.3	3.0
BAR FA6 US3	7.3	4.3	6.7	5.0	8.0	5.0	2.7
WPEZE (WPB-1C)	7.7	4.3	6.0	6.3	8.0	7.3	6.0
WX3-275	8.3	4.7	6.0	7.3	8.0	6.0	3.0
SAFARI	7.7	4.0	7.7	6.7	8.0	6.3	2.7
DLF-1	7.0	4.3	6.3	6.7	8.0	5.7	3.3
TITAN 2	9.0	4.0	6.7	5.0	8.0	6.0	2.7
COYOTE	7.7	4.0	6.0	7.3	8.0	5.7	3.3
MARKSMAN	8.7	4.7	6.7	5.7	8.0	5.0	2.7
WPB-1B	8.0	4.7	7.7	6.0	8.0	4.7	2.7
ISI-TF9	8.3	4.0	5.7	5.7	8.0	4.3	2.7
DP 50-9011	6.7	3.7	7.7	6.0	7.0	6.0	3.0
MASTERPIECE (LTP-SD-TF)	9.0	4.0	7.3	4.3	8.0	5.0	5.8
OFL-FHY	8.0	4.7	6.7	6.0	8.0	6.0	2.7
REBEL 2000 (AA-989)	7.7	5.0	6.3	6.0	7.7	5.0	3.3
SHENANDOAH	8.0	3.7	6.0	7.0	8.0	4.7	3.3
AA-983	7.7	3.7	6.3	6.7	8.0	5.7	2.7
ATF-192	7.0	4.7	6.0	6.3	8.0	5.0	5.8
BAR FA6 USA	8.3	3.7	5.7	6.0	8.0	5.0	2.7
FALCON II	8.3	4.0	5.0	7.3	8.0	5.0	5.8

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TABLE 38.  
(CONT'D)BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS  
1997 DATA

NAME	BROWN PATCH RATINGS 1-9; 9=NO DISEASE					MEAN
	AR1	GA1	IN1	MS1	NE1	
JSC-1	7.3	4.3	6.0	6.7	8.0	5.0
SOUTHERN CHOICE	8.0	3.7	7.0	6.3	7.7	5.0
ZPS-2PTF	7.3	5.3	6.0	4.3	8.0	6.0
OFI-96-32	8.0	5.0	6.0	5.7	8.0	5.7
BANDANA (PST-R5AE)	7.3	4.3	7.0	7.0	8.0	5.3
ATF-253	6.0	4.7	6.0	6.3	8.0	5.3
JTF-FC-96	9.0	4.3	4.7	5.3	8.0	5.7
GOOD-EN (KOOS 94-14)	7.7	4.0	5.3	5.3	8.0	6.0
ISI-TF11	8.3	4.3	5.3	5.0	7.7	5.7
OFI-931	8.0	4.3	6.3	5.3	8.0	6.0
TA-7	8.0	4.0	5.7	5.3	8.0	5.7
PST-5M5	8.3	4.3	6.3	5.0	8.0	5.7
DP 7952	6.7	5.0	7.0	3.0	8.0	6.0
GENESIS	8.0	3.7	5.7	6.7	8.0	5.3
OFI-96-31	6.7	4.3	6.7	4.3	8.0	5.3
MB-28	8.0	4.7	5.3	6.0	8.0	6.0
RESERVE (ATF-182)	6.3	4.7	5.7	4.7	8.0	5.7
WRS2	7.0	4.0	7.0	5.7	8.0	6.3
LION	7.7	3.7	6.7	5.7	8.0	5.7
ATF-196	7.0	4.3	5.7	6.3	8.0	5.7
FINELEANN PETITE	8.0	4.0	6.7	5.0	8.0	5.3
TWILIGHT II (TMI-TW)	7.0	3.7	6.7	6.7	7.7	6.3
EC-101	7.7	4.3	6.0	3.7	8.0	6.0
COMSTOCK (SSDE31)	8.7	3.3	6.0	5.3	8.0	5.0
CORONADO GOLD (PST-5RT)	8.3	3.3	6.3	6.3	8.0	5.7
ISI-TF10	7.3	4.0	5.7	5.3	8.0	5.0
J-101	8.3	4.7	5.3	4.0	8.0	6.0
MB 210	7.3	4.0	5.7	5.7	8.0	5.3
MB 212	7.7	4.3	5.7	6.0	7.3	5.7
MB 26	7.0	4.0	5.3	6.0	8.0	5.0
WVBB-1D	8.0	3.7	5.7	5.7	8.0	5.7
PIXIE E+	7.7	4.7	6.0	3.7	8.0	5.3
AZTEC II (TMI-AZ)	8.0	4.0	6.3	5.3	7.3	6.7
EA 41	8.0	4.3	5.0	4.3	8.0	6.0
SRX 8084	7.7	4.0	5.7	5.7	8.0	5.7
BAR FA6 US1	7.0	3.7	6.0	6.7	8.0	5.3
CORONADO	8.3	3.3	5.0	5.7	8.0	5.0
PSII-TF-10	7.0	3.0	5.7	7.3	8.0	5.7
DUSTER	6.7	4.0	6.0	6.0	8.0	5.7
PICK FA B-93	6.7	4.7	6.3	4.3	8.0	6.0
MB 216	7.3	4.7	5.0	6.3	7.0	5.3
PC-AO	6.7	3.7	6.0	5.7	8.0	6.0
PSII-TF-9	7.7	4.7	5.7	6.0	8.0	4.7
ATF-188	6.7	4.3	5.0	4.7	7.7	6.0
REGIMENT	7.7	4.7	5.7	5.0	7.7	5.3
TULSA	7.7	4.3	6.0	4.7	8.0	6.7

TABLE 38.  
(CONT'D.)

BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS  
1997 DATA

NAME	BROWN PATCH RATINGS 1-9; 9=NO DISEASE					MEAN			
	AR1	GA1	IN1	MS1	NE1				
BONSAI 2000 (BULLET)	6.7	4.0	5.7	3.7	7.7	6.3	6.0	3.0	5.4
KITTY HAWK S.S.T. (SS45DW)	7.0	3.7	6.0	6.0	8.0	5.3	4.3	2.7	5.4
LEPRECHAUN	8.0	4.0	5.3	5.0	8.0	4.7	5.0	3.0	5.4
PST-5TO	8.3	3.3	6.7	4.7	8.0	5.3	4.0	2.7	5.4
SUNPRO	7.7	3.7	6.0	4.7	8.0	5.3	4.7	3.0	5.4
ANTHEM II (TMI-FMN)	7.7	4.0	6.3	4.3	8.0	6.0	4.0	2.7	5.4
ARABIA (J-5)	7.7	4.3	4.3	4.0	8.0	6.3	5.7	2.7	5.4
MB 213	8.3	4.0	6.7	3.3	8.0	5.0	4.7	3.0	5.4
PICK FA 6-91	6.7	5.0	5.7	5.7	8.0	5.7	4.0	2.0	5.3
BRAVO (RG-93)	8.3	3.7	6.0	4.7	8.0	4.7	4.7	2.7	5.3
BAR FA 6LV	6.3	3.7	5.0	5.3	8.0	5.7	5.3	3.0	5.3
MB 214	8.0	3.3	5.0	6.0	6.7	5.3	5.3	2.7	5.3
PRO 8430	7.3	3.7	5.7	4.0	8.0	6.0	4.7	3.0	5.3
EMPERESS	7.3	3.7	5.3	6.0	8.0	4.7	4.7	2.7	5.3
PICK FA XK-95	7.3	3.7	4.7	5.3	8.0	5.7	4.7	3.0	5.3
BAR FA 6D	6.7	3.3	5.7	5.7	7.7	5.7	4.7	2.3	5.2
COCHISE II	6.7	4.3	5.3	3.7	8.0	5.3	5.3	3.0	5.2
APACHE II	7.7	3.7	3.7	4.0	8.0	6.0	5.7	3.0	5.2
BAR FA6 US6F	7.0	4.0	6.0	2.7	8.0	5.7	5.7	2.3	5.2
MB 215	8.0	3.0	4.7	3.7	8.0	6.0	4.7	3.3	5.2
BONSAI	7.0	3.7	7.0	2.7	8.0	5.0	5.3	2.7	5.2
REBEL SENTRY (AA-A91)	5.7	4.3	5.7	4.3	7.7	5.7	4.7	3.0	5.1
ZPS-5LZ	8.0	3.0	4.3	5.0	8.0	5.3	4.3	2.7	5.1
TOMAHAWK-E	7.0	3.0	5.7	6.0	6.7	5.3	4.0	2.7	5.0
SRX 8500	7.0	4.3	5.0	3.7	7.7	5.0	4.0	3.3	5.0
EQUINOX (TMI-N91)	6.3	3.7	6.0	4.0	7.3	5.7	4.3	2.7	5.0
ARID 2 (J-3)	6.3	4.0	5.3	2.7	8.0	6.0	5.0	2.7	5.0
PICK FA 20-92	6.7	3.7	5.7	4.0	8.0	5.3	4.0	2.3	5.0
AV-1	6.3	3.3	6.3	4.3	7.7	5.0	4.7	2.0	5.0
ALAMO E	6.0	3.0	4.3	5.7	8.0	5.3	4.0	3.0	4.9
PICK GA-96	5.7	3.7	5.0	4.0	7.7	6.3	4.3	2.7	4.9
GAZELLE	6.3	3.7	5.7	4.3	8.0	4.3	4.3	2.3	4.9
PICK FA 15-92	5.7	3.7	7.7	1.7	8.0	5.7	3.3	2.7	4.8
PICK FA N-93	6.0	3.0	5.3	3.0	8.0	5.7	4.0	3.0	4.8
SHORTSTOP II	5.3	3.3	5.3	3.3	8.0	6.0	4.0	2.7	4.8
QF1-951	6.0	3.3	4.7	4.0	8.0	5.0	3.7	3.0	4.7
PICK FA UT-93	4.0	3.0	5.0	2.7	8.0	6.3	3.7	3.7	4.5
SR 8210	5.7	2.7	3.7	4.3	8.0	5.3	4.0	2.3	4.5
LSD VALUE	2.3	1.5	2.6	2.9	0.7	1.6	1.6	0.9	0.7
C.V. (%)	18.9	22.2	27.1	33.7	5.7	17.0	19.2	19.7	21.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.  
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

Table 19

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TABLE 39.

PYTHIUM BLIGHT RATINGS OF TALL FESCUE CULTIVARS 1/  
1997 DATA

NAME	KS2	NAME	KS2	NAME	KS2
TOMAHAWK-E	7.3	GENESIS	4.7	BAR FA6 US2U	3.3
KENTUCKY-31 W/ENDO.	7.0	MB 213	4.7	COYOTE	3.3
AV-1	6.7	MB 214	4.7	CROSSFIRE II	3.3
ISI-TF10	6.7	MB 26	4.7	EC-101	3.3
JSC-1	6.7	PICK FA 20-92	4.7	MB 211	3.3
KITTY HAWK S.S.T. (SS45DW)	6.7	WRS2	4.7	PICK FA 15-92	3.3
RENEGADE	6.7	ANTHEM II (TMI-FMN)	4.7	PST-523	3.3
DP 7952	6.3	BAR FA6 US3	4.3	REBEL SENTRY (AA-A91)	3.3
JTTFC-96	6.3	BONSAI 2000 (BULLET)	4.3	TA-7	3.3
GOOD-EN (KOOS 94-14)	6.3	EA 41	4.3	WPEZE (WVFB-1C)	3.3
OF1-931	6.3	EQUINOX (TMI-N91)	4.3	DUSTER	3.0
FALCON 11	6.0	MB 212	4.3	MB 215	3.0
FINELAWN PETITE	6.0	PC-AO	4.3	MILLENIUM (TMI-RBR)	3.0
PRO 8430	6.0	PICK RT-95	4.3	SRX 8500	3.0
SAFARI	6.0	SHENANDOAH	4.3	SUNPRO	3.0
APACHE II	5.7	SR 8210	4.3	TULSA	3.0
CUP502T	5.7	SRX 8084	4.3	AA-983	2.7
DLF-1	5.7	TITAN 2	4.3	ATF-198	2.7
LEPRECHAUN	5.7	WPB-10	4.3	ATF-192	2.7
MASTERPIECE (LTP-SD-TF)	5.7	ZPS-2PTF	4.3	ATF-257	2.7
PICK FA 6-91	5.7	ARID	4.0	BANDANA (PST-R5AE)	2.7
PST-5E5	5.7	BAR FA6 US6F	4.0	OF1-951	2.7
WPB-1B	5.7	BRAVO (RG-93)	4.0	PIXIE E+	2.7
BAR FA 6D	5.3	COMSTOCK (SSDE31)	4.0	R5AU	2.7
BAR FA6 USA	5.3	CORONADO GOLD (PST-5RT)	4.0	SOUTHERN CHOICE	2.7
DP 50-9011	5.3	CU9011	4.0	WOLFACK (PST-R5TK)	2.7
MB 210	5.3	EMPRESS	4.0	JTTFC-96	2.3
MB 216	5.3	ISI-TF11	4.0	REMBANDT (LTP-4026 E+)	2.3
MB 29	5.3	ISI-TF9	4.0	ZPS-5LZ	2.3
WX3-275	5.3	JAGUAR 3	4.0	J-101	2.0
ALAMO E	5.0	MB 28	4.0	MUSTANG 11	2.0
BAR FA6 US1	5.0	PSII-TF-9	4.0	PICK FA 8-93	2.0
BONSAI	5.0	RESERVE (ATF-182)	4.0	PICK FA UT-93	2.0
CORONADO	5.0	TAR HEEL	4.0	REGIMENT	2.0
MARKSMAN	5.0	TWILIGHT II (TMI-TW)	4.0	SHORTSTOP II	2.0
OF1-96-31	5.0	ARID 3 (J-28)	3.7	PLANTATION (PENNINGTON-1901)	1.7
OF1-96-32	5.0	COCHISE II	3.7	GAZELLE	1.3
OF1-FWY	5.0	LION	3.7	PICK GA-96	1.3
PSII-TF-10	5.0	PICK FA N-93	3.7	REBEL 2000 (AA-989)	1.0
PST-5MS	5.0	PICK FA XK-95	3.7		
PST-5TO	5.0	ARID 2 (J-3)	3.3	LSD VALUE	3.3
ARABIA (J-5)	4.7	ATF-020	3.3		
ATF-253	4.7	ATF-022	3.3	C.V. (%)	48.5
AZTEC II (TMI-AZ)	4.7	ATF-038	3.3		
BAR FA 6LV	4.7	ATF-196	3.3		

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Table 20

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**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S)

Turf Merchants, Inc.  
Steve Tubbs 7a.s  
2/07/2005

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)

Turf Merchants, Inc.  
33390 Tangent Loop  
Tangent, Oregon 97389

2. TEMPORARY DESIGNATION  
OR EXPERIMENTAL NUMBER

TMI-AZII

3. VARIETY NAME

Aztec II

5. TELEPHONE (include area code)

(541)926-8649

6. FAX (include area code)

(541)926-4435

7. PVPO NUMBER

9900217

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.

YES  NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company?

If no, give name of country

YES  NO

10. Is the applicant the original owner?

YES  NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

YES  NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

YES  NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

**PLEASE NOTE:**

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

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